# Fall City Trail Feasibility Study

## King County Department of Construction and Facilities Management



May 2001 FINAL DRAFT

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Prepared for

King County Department of Construction and Facilities Management

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#### PART I. OVERVIEW

#### **PREFACE**

Fall City, located at the confluence of the Raging River and the Snoqualmie River in the foothills of the Cascade Range, is known for its spectacular natural setting. The Snoqualmie River meanders majestically through a broad pastoral valley, flanked by steep wooded hillsides and the snow-capped peaks of the Cascade Mountains.

This scenic area has become increasingly popular among both regional and local citizens seeking recreational opportunities. In an outgoing effort to meet these needs over the past two decades King County has established two nonmotorized regional trails, the Preston-Snoqualmie Trail and the Snoqualmie Valley Trail. Both trails are located in close proximity to Fall City, Washington.

#### **PURPOSE**

In June 2000 the King County Council adopted the *Fall City Subarea Plan* consisting of a number of recommendations in respect to land use designations, town boundaries, and *King County Comprehensive Plan* policies. The *Subarea Plan* was the result of a combined effort between the King County Department of Development and Environmental Services and an appointed eleven-member citizen advisory committee. Recommendations pertaining to open space and trail use identified the need to conduct a feasibility study to explore the different route options for a trail connecting Fall City with the Preston-Snoqualmie and Snoqualmie Valley Trails:

PTO-2 King County should conduct a trail feasibility study for the Preston-Fall City corridor which reviews options and recommends ways to connect Fall City to the Snoqualmie Valley Trail and the Preston-Snoqualmie Trail.

This *Fall City Trail Feasibility Study* implements policy PTO-2.



#### **EXECUTIVE SUMMARY**

#### **Overview**

The intent of this study is to determine the most feasible route to connect the community of Fall City with two existing regional trails, the Snoqualmie Valley Trail to the north and the Preston-Snoqualmie Trail to the south.

The connection from Fall City to the Snoqualmie Valley Trail is essentially already established. As a result, this report focuses on the route to link Fall City with the Preston-Snoqualmie Trail.

Several goals and objectives have been identified to guide this process, they are as follows:

- Establish convenient new regional trail linkages between the community and the two regional trails;
- Develop regional trail links that are consistent with the King County guidelines for trail development and other established standard trail evaluation criteria;
- Provide a continuous regional recreational trail system for pedestrian, bicycle and equestrian use to the extent possible.

#### **Context / Influencing Factors**

The Preston Fall City area is a popular destination for recreational trail use for regional and local visitors alike. The varied topography, vistas of the Cascade Mountains, and the confluence of the Snoqualmie River and the Raging River create a setting of outstanding scenic quality. Pedestrians, bicyclists and equestrians typically frequent area trails. Each of these user groups has specific design requirements with respect to surfacing, clearance, width of path, sight lines and so on. Other issues, such as traffic volumes, sensitive areas, private property, steep slopes and width of a potential corridor influence the choices for the trail route.

#### **Planning Context**

The feasibility of the proposed Fall City regional trail links will be influenced by King County plans and regulations. The trail routes selected must be consistent with these policy documents and codes, which seek to balance growth and environmental protection. Plans which provide direction include:

- King County Regional Trails Plan;
- King County Park, Recreation, and Open Space Plan;
- Fall City Subarea Plan;

- Snoqualmie Valley Community Plan;
- King County Comprehensive Plan (1994 and 2000); and
- Urban Trails Plan.

Regulatory direction for the proposed trail links would be provided by various County regulations, including, but not limited to, the following codes and programs:

- King County Code Chapter 21A.24 Environmental Sensitive Areas;
- Sensitive Areas: Presumption of Salmonids, Sensitive Area and Buffer Modifications, Mitigation Requirements Public Rule (under 21A-24);
- Sensitive Areas: Public and Private Trails Public Rule (under 21A-24);
- Tri-County Proposal: Regulation of Near-shore and Aquatic Development - A Proposal to Help Protect Salmonid Habitat in the Puget Sound Region;
- State Environmental Policy Act (SEPA); and
- King County Shoreline Master Program.

The application of County sensitive areas regulations and other programs to various trail alignment options will provide site-specific guidance during the permit process.

#### **Route Selection**

The consultant team identified an existing northern connection to link the existing Snoqualmie Valley Trail with Fall City via the Snoqualmie River Bridge. Six potential trail routes were identified for the southern connection between the existing Preston-Snoqualmie Trail and Fall City. After careful review of existing data, additional fieldwork, and incorporation of public comment these southern route options were further refined and/or modified.

A list of criteria was developed to determine which of these route options best satisfies the set goals. These criteria were scored on a scale from 0 to 5 with the highest value reflecting the best conditions. A hierarchy was established as to the importance of the individual criteria items. Characteristics such as safety, development cost, availability of right-of-way and sensitive area impacts/permitting were identified as the most critical factors among the ten criteria. Based on this system, the maximum score would be 70 points.

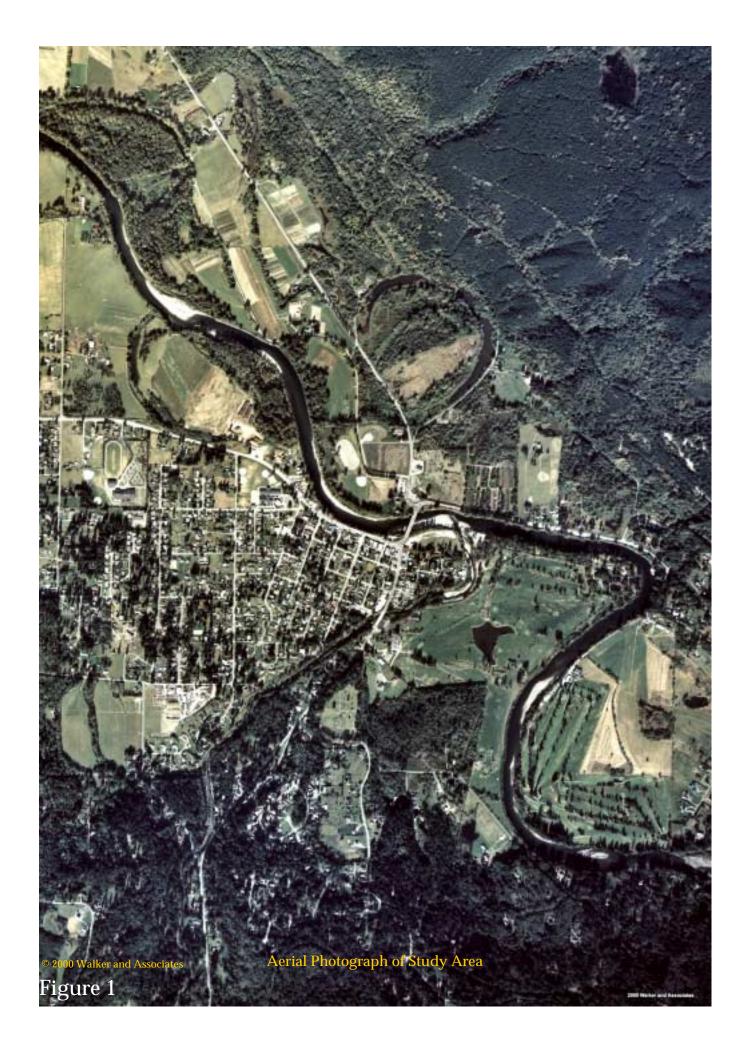
#### **Conclusion/Recommended Route**

Four out of the six southern routes scored extremely low in at least one of the critical factors. In some cases this low score disqualified the alternative from being a potentially feasible route. Two of the alternative routes, Options 4 and 5, scored sufficiently high in the first four critical factors and satisfactory to good in the remaining criteria.

Route Option 4 scored highest of all southern route options with 45 points out of 75 possible. It is recommended as the most feasible route to connect Fall City to the Preston-Snoqualmie Trail. This route travels mostly along public rights-of-way keeping the cost of acquisition of private property to a minimum. Utilization of existing roadway shoulders, sharing of low-traffic volume rural and residential roads are other cost cutting features. The trail connection is efficient and convenient, reasonably safe, and affords scenic vistas.

Trail construction may include limited clearing and grading, surfacing, striping and signage, depending on existing conditions in the various segments of the route. Crosswalks and the construction of a retaining wall along a short section of the trail will most likely be necessary with Option 4.

Since the trail corridor bisects both public and private lands, negotiations with public agencies and private property owners must precede development of the trail. Additionally, it is recommended that existing traffic safety issues be resolved prior to trail construction.



## PART II. CONTEXT / INFLUENCING FACTORS

#### **SETTING/STUDY AREA**

The region explored in this study is centered on Fall City, encompassing approximately four (4) square miles. Two distinct topographical patterns prevail in the study area: flat valley bottom land and steep slopes. The steepest slopes along the banks of the Raging River exceed 40 percent. Elevations range from roughly 80 to 500 feet above sea level.

Two important salmon-bearing rivers, the Snoqualmie River and the Raging River as well as a related system of sloughs, wetlands, and other salmonid streams shape the landscape. The broad flood plane of the Snoqualmie is open in character with few clumps of larger trees and scattered riparian vegetation along the banks. In contrast, the bed of the Raging River cuts deeply into the hills between Preston and Fall City. Steep, heavily wooded slopes flank both sides of the river, leaving only a limited area to absorb floodwaters. As a result, a levee has been built to contain the frequent floods and to protect development adjacent to the river.

Fall City is a growing rural town with a current population of approximately 1,582 residents. The town evolved along a pattern of generously spaced streets. The small-scale downtown includes historic buildings and landmarks as well as locally owned businesses.

Fall City provides a major river crossing opportunity for the region. Two highways, State Routes 202 and 203, intersect at Fall City and SR 202 uses the Snoqualmie River Bridge to cross the Snoqualmie River.







#### **GOALS**

The major goal of this study is to identify the most feasible routes to connect the community of Fall City with two nearby existing regional trails, the Snoqualmie Valley Trail and the Preston-Snoqualmie Trail. The study addresses the following objectives:

- Establish convenient new regional trail linkages between the community and the two regional trails;
- Develop regional trail links that are consistent with the King County guidelines for trail development and other established standard trail evaluation criteria;
- Provide a continuous regional recreational trail system for pedestrian, bicycle and equestrian use to the extent possible.

#### **ISSUES**

Route selection for the regional trail links is influenced by the presence of major rivers, steep slopes, and high traffic volumes on Preston-Fall City Road, combined with extensive private land ownership.

Large tracts of the study area are identified and classified by King County as "environmentally sensitive." This classification may restrict, to a greater or lesser degree, opportunities for the development of a trail corridor in those areas. For example, steep slopes may not only be unsuitable for trail use, but they are also subject to erosion and landslides. Streams and rivers and areas surrounding them (buffers) provide valuable salmon habitat and may be off limits to development or development may be substantially restricted by law. Trail development in such areas, if not prohibited, may be subject to extensive and complex regulatory approval.

Much of the land within the study area is in private ownership (See Appendix C). Many parcels are already developed or are in the process of permitting for future development. The new regional trail links will have to identify alignments that maximize the use of public lands, rights-of-way, public easements, or other accessible routes rather than routes crossing private property with their inherent cost issues.

Two major highways, State Routes 202 and 203, cross the study area and intersect in Fall City. High traffic volumes on these facilities may make adjacent trail use unsafe. Area roads with lower traffic volumes typically provide



Preston Fall City Road



Homes along the Raging River



Rutherford Slough

better shared corridors for simultaneous motorized and nonmotorized use.

#### PLANNING CONTEXT

The feasibility of the proposed Fall City regional trail links will be influenced by King County plans and regulations. The trail routes selected must be consistent with these policy documents and codes, which seek to balance growth and environmental protection. Plans that provide direction include:

- King County Regional Trails Plan;
- King County Park, Recreation, and Open Space Plan;
- Fall City Subarea Plan;
- Snoqualmie Valley Community Plan;
- King County Comprehensive Plan (1994 and 2000); and
- Urban Trails Plan.

The policies in these plans provide an overall context for regional trail planning.

Regulatory direction for the proposed trail links would be provided by various County regulations, including, but not limited to, the following codes and programs:

- King County Code Chapter 21A.24 Environmental Sensitive Areas;
- Sensitive Areas: Presumption of Salmonids, Sensitive Area and Buffer Modifications, Mitigation Requirements Public Rule (under 21A-24);
- Sensitive Areas: Public and Private Trails Public Rule (under 21A-24);
- Tri-County Proposal: Regulation of Near-shore and Aquatic Development - A Proposal to Help Protect Salmonid Habitat in the Puget Sound Region;
- State Environmental Policy Act (SEPA); and
- King County Shoreline Master Program.

The application of County sensitive areas regulations and other programs to various trail alignment options will provide site-specific guidance during the permit process. Evolving sensitive areas codes and legislative proposals will have a significant influence over the final location and character of the selected regional trail alignments.

A thorough discussion of these documents and their applicability to the regional trail links is provided in Appendix G "Planning Context" of this feasibility study.

#### DESIGN REQUIREMENTS / USER TYPES

The connecting links between Fall City and the two existing regional multi-use trails would be designed to accommodate a typical mix of regional trail users: pedestrians, bicyclists, and equestrians, although the greatest equestrian use currently occurs on the Snoqualmie Valley Trail at present.

To assure a safe and convenient recreation experience there are specific requirements for each of these trail user types. The requirements differ with respect to surfacing, clearance, width or path, sight lines and so on. The following section introduces the typical design requirements for each of these uses.

#### **Pedestrian**

This category includes a wide variety of uses from walking, hiking, and jogging to bird watching. In general, pedestrian uses tend to have fewer specific design requirements than either bicycling or equestrian uses. This results in a greater flexibility with respect to route selection. Pedestrians more readily tolerate varying slopes and surfaces, and they need less width and shorter sight distances. In most cases, they can be safely accommodated along existing roads and bridges. Furthermore, pedestrian trail use in sensitive areas may be more readily approved by regulatory agencies.





Pedestrians on the Preston-Snoqualmie Trail

Surface: Tolerate a variety of surfaces, but prefer

softer surfaces such as crushed rock

Clearance: 7' vertical Path Width: 4' minimum

Grades: Tolerate a greater range of slopes, up to

18% maximum

Sight Distance: 50' each way minimum

Travel Speed: Lower speeds, typically between 3-5 mph



Bicyclist crossing the Snoqualmie River Bridge (SR 202)

#### **Bicyclist**

A variety of specific design requirements due to higher travel speeds, maximum grade limitations, and surfacing determine the route options for bicyclists. Longer sight and stopping distances are mandatory for safety. The combination of these requirements leaves fewer choices for possible trail routes.

While the basic design requirements for mountain bikers are the same as for other bicyclists, mountain bikers may also prefer a more challenging experience, steeper grades, and softer surfaces.



Surface: Asphalt preferred (touring), crushed rock,

other soft surfaces suitable for mountain

bikes

Clearance: 8' vertical

Path Width: Minimum 5' (one way), 10-12' (two way)

In combination w/other uses: minimum 8', better 10', w/2' clearance on either side

Grades: Maximum sustained grades of 2-3% are

desirable and should not exceed 4-5%. Steeper slopes of 10-15% are tolerated

over a short distance

Sight distance: 150' each way minimum

Travel Speed: Typically 20 mph minimum for flat, 30

mph minimum for up to 5% grades

#### **Equestrian**

Soft surface dirt or granular stone are preferred over harder surfaces such as asphalt and concrete. Horses easily manage difficult terrain, steep grades and wet areas as long as there is sufficient clearance and sight distance.

Safety is a major concern since a horse's reactions are unpredictable. Therefore, equestrian uses may not be well suited along roads or bridges or where intersecting traffic is expected. Another issue is the impact of horses on soft surfaces, especially under wet conditions. They may contribute to erosion and stream infiltration and contamination. For these reasons such uses may be more difficult to permit in sensitive areas, such as stream buffers.



Equestrians near the intersection of SR 203 and SE 39th Place



Surface: Dirt or granular stone

Clearance: 10' minimum vertical, 8' minimum hori-

zontal

Path Width: Variable, if path is hard surface equestri-

ans need at least 5' of soft surface to the

side

Grades: Tolerate steeper slopes, possibly up to

18%

Sight Distance: 100' each way minimum
Travel Speed: Typically between 5-15 mph

#### PART III. ROUTE SELECTION

#### **PROCESS**

#### WORK PLAN

The work plan outlining the planning process for the Fall City Trail Feasibility Study consisted of the following four tasks:

#### Task 1 - Project Organization - Pre-planning

Study reviewed existing data and documentation and developed a work plan, process, and schedule to guide the planning process from initiation to final recommendation of a preferred route.

#### Task II - Analysis/Inventory

Study collected and mapped relevant data to establish an inventory of the existing conditions. Based on these findings, opportunities and constraints were identified. Goals and evaluation criteria were generated (analyzing cost and program goal satisfaction). Results were reviewed by King County staff and presented to the public. Public input was gathered.

#### Task III - Draft Feasibility Study

Based on Tasks I and II, several route options were identified. Alternative routes using the established criteria and goals were evaluated. Preliminary cost estimates were developed and reviewed by King County staff and presented to the public. Public input was solicited.

#### Task IV - Final Feasibility Study

Study reviewed and incorporated public comments and a final draft feasibility report, including recommended routes and estimated development costs, was completed.

#### COMMUNITY INVOLVEMENT



Public Meeting March 26, 2001

The Fall City community has a strong interest in the *Fall City Feasibility Study* and where trail alignments might be located. A series of public meetings was held to obtain public comment on the planning team's alternative route proposals. The team reviewed and considered all comments. Identified route alternatives incorporate the public's input to the extent possible.

A variety of local advocacy groups participated in the public meeting process, including the Raging River Action Committee, which lobbied for the utilization of the left levee of the Raging River as part of the trail link to the Preston-Snoqualmie Trail.

#### **EVALUATION**

A list of criteria was developed to evaluate and determine which of the route options best satisfies the set goals. These criteria combined the *King County Regional Trail Plan*, Trail Alignment, Design, and Construction Guidelines criteria (Appendix A) and additional standard trail evaluation criteria typically used to evaluate potential trail routes (Appendix D) and included the following:

#### Safety

Safety was the primary aspect in considering and evaluating a trail route. Avoiding and/or minimizing potentially dangerous situations was the foremost goal. Of greatest concern were potentially dangerous conflicts with other traffic modes (i.e., vehicles). Trail intersections with high-volume roadways, highways, and limited sight lines were serious safety concerns. Locations where trails would share the roadway with motorized vehicles needed to be carefully examined on a site-specific basis. Successful sharing depends on traffic volumes and speeds, width of right-of-way, and shoulder width and condition.

#### **Development Cost**

The cost of developing a trail corridor depends on a number of factors, including specific terrain and topography, width and condition of the available corridor and the need for construction items such as barriers. Major construction items, such as modifications to or the construction of new bridges, retaining walls, railings, and signalized crossings, increase cost.

#### Availability of Public Right-of-Way

A public trail route is preferably located on public land, but routes may utilize public rights-of-way and easements or transect private property. Acquisition of private land may add to the overall cost of the project. Public right-of-way availability was reviewed for each trail alternative.

#### Sensitive Areas/Permitting

Large portions of the study area have been identified and classified by King County as "sensitive," subject to King County's Sensitive Areas regulations (King County Code 21A.24) (Appendix B). These regulations outline specific requirements within designated sensitive areas, such as streams, wetlands, potential erosion and landslide hazard areas and their buffers.

Trail planners will most often attempt to avoid or circumvent designated sensitive areas in order to reduce impacts to sensitive habitat. If such sensitive areas are impacted, a rigorous review and permitting process is mandatory. The protection of habitat associated with salmon-bearing rivers, such as the Snoqualmie and Raging Rivers, is particularly important, as the County attempts to meet mandates for the protection under the federal Endangered Species Act (ESA). Trail routes along these rivers, if permitted, would require approvals from local and federal agencies.

#### Topography

The degree of slope was a determining factor in evaluating each trail corridor. Steep slopes can pose a serious limitation to trail use. The desired and tolerated degree of the final design grade varies by user type (see Part II: Design Requirements). Steep slopes are also problematic from an environmental point of view. They are subject to erosion and potential landslides. Topography was considered for each proposed route.

#### Adverse Impacts/Liabilities

This criterion evaluated the degree of impact with respect to noise, pollution, runoff, conflicting traffic patterns, and intrusion on users and abutting land uses.

#### Scenic Value

The perception of a landscape and its scenic value is of a more subjective nature. Certain types of visual experiences are commonly preferred, however. Scenic vistas, variations in light and shade, and a mix of open and closed natural landscapes are especially appreciated. These qualities were examined for each route.

#### Recreational Value

This criterion refers to the recreational experience itself. It examined the degree to which different users can exercise their activity on the proposed trail. Opportunities for education and interpretation were also considered.

#### Connectivity

The proposed trails are considered links in the regional trail system. The number and quality of destinations and elements of interest connected through the route were additional factors considered.

#### Multi-Use Potential

Whether or not all three user types can utilize the proposed route and how well the route can accommodate each of these users was the focus of this criterion.

#### **SCORING**

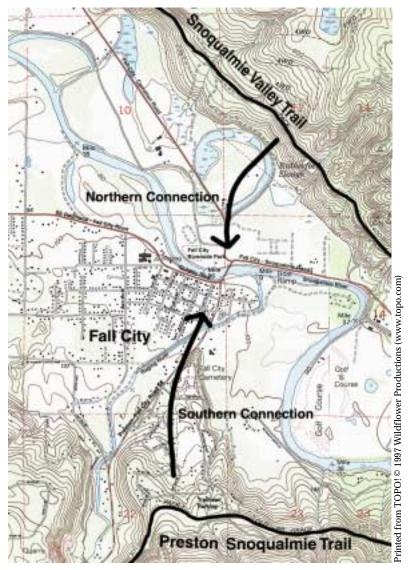
The above criteria have been scored on a scale from 0 to 5 points with the highest values reflecting the best conditions (see Appendix E, "Scoring Matrix"). Factors, such as safety, development cost, availability of right-of-way, and sensitive areas impacts/permitting were identified as the most critical factors in evaluating each route. These criteria were given double weight in scoring. Based on this system the maximum score possible was 70 points.

#### **EXISTING REGIONAL TRAILS**

The two existing regional multi-use trails, the Preston-Snoqualmie Trail and the Snoqualmie Valley Trail, are distinct in their emphasis for different uses. The asphalt paved Preston-Snoqualmie Trail mainly serves bicyclists and pedestrians. Only a few equestrians use the soft shoulders on either side of the paved trail.

Additional equestrian trails are located south of the Preston-Snoqualmie Trail, and a connection across the valley could greatly improve the recreational opportunities for equestrians in the area.

The Snoqualmie Valley Trail is used regularly by all three user types. Equestrians frequent this trail due to the suitable crushed rock surface and the convenient access to the horse arena and trailer parking facilities at Fall City Riverside Park.





Preston-Snoqualmie Trail



Snoqualmie Valley Trail

Figure 2

Existing sidewalk on Snoqualmie Bridge



Crossing at Fall City Carnation Road



Fall City Riverfront Park Horse Arena

#### **ALTERNATE ROUTES**

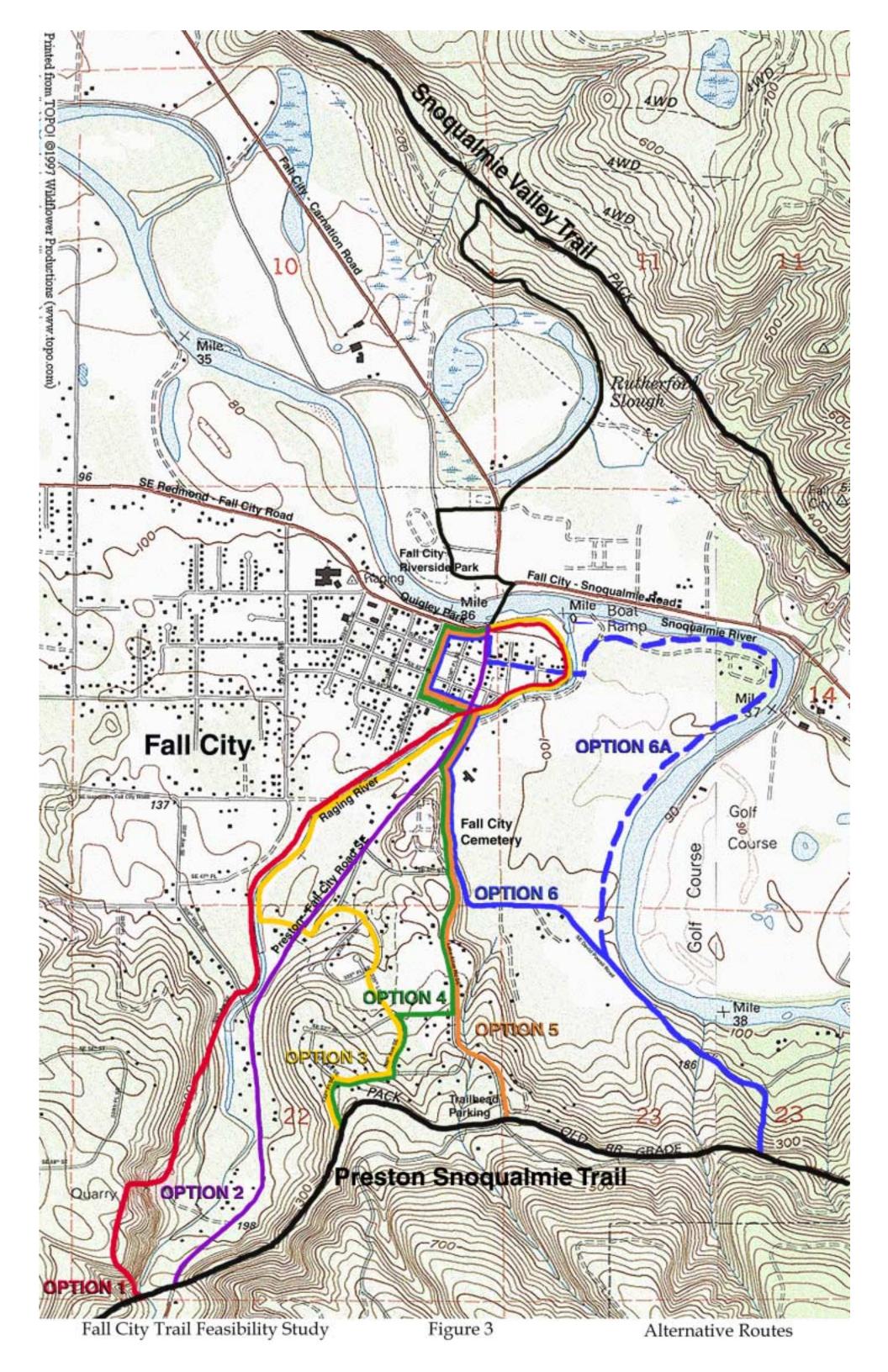
This study looked at two regional trail connections to Fall City, the northern link from the Snoqualmie Valley Trail and the southern link from the Preston-Snoqualmie Trail.

NORTHERN CONNECTION - SNOQUALMIE VALLEY TRAIL TO FALL CITY

This trail route is shown in Figure 3 and is essentially already established. Starting from the Snoqualmie Valley Trail this route gradually works its way down the slope above Rutherford Slough to SE 39<sup>th</sup> Place. It continues in a westerly direction on SE 39<sup>th</sup> Place, sharing the roadway to the intersection with the Fall City-Carnation Road (SR 203). After crossing the highway the route enters Fall City Riverside Park, looping through the park back toward the Fall City-Carnation Road. It travels a short distance on the south side of the highway and then crosses the Snoqualmie River Bridge utilizing the existing sidewalk on the west side of the bridge to continue into downtown Fall City.

In the *Pedestrian and Traffic Safety Recommendations to the Community* (May 2000) a recommendation is made to construct a new bridge across the Snoqualmie River for non-motorized use. Obtaining environmental permits for such a bridge would be difficult due to sensitive areas regulations and, perhaps, impossible while costs would be high. A modification to the existing bridge should be considered as an alternative. The sidewalk on the west side of the Snoqualmie River Bridge safely accommodates pedestrians and bicyclists, but is of only limited suitability for equestrian uses. At present horses need to be walked across the bridge to ensure safe crossing. A modification of the bridge, although costly, may improve equestrian access to the horse arena and the Snoqualmie Valley Trail.

The most important proposed safety improvement on this trail link would be the implementation of a signalized crossing at Fall City-Carnation Road (SR 203) near the intersection with SE 39th Place.



## SOUTHERN PORTION – PRESTON-SNOQUALMIE TRAIL TO FALL CITY

Finding the most feasible link to establish this regional trail connection is the focus of this study. During the planning process several general route opportunities were identified, as shown in Figure 3. Additional route option proposals were also provided by the public and incorporated in this study. Each alternative was evaluated with respect to its feasibility, impact, and cost, and a preferred alternative was recommended. The following is a description and evaluation of these alternative routes.

#### **Option 1**

#### **Route Description:**

This route branches off the Preston-Snoqualmie Trail before it crosses the Preston-Fall City Road. It heads through the forest towards the top of the quarry. From there it descends down a steep slope to the bottom of the quarry, traverses the woods until it reaches 329th Avenue SE. It crosses 328th Way SE to the levee west of the Raging River and follows the levee all the way to SE 44th Place. At this point the trail route crosses Preston-Fall City Road to continue using the levee along the Raging River. Looping past the confluence of the Raging River and the Snoqualmie River, the trail reaches the Snoqualmie River Bridge. Here, it would cross the highway to use the existing sidewalk on the western side of the bridge to link with the northern connection to the Snoqualmie Valley Trail.

#### Advantages:

The advantage to this route is its use of the levee located on the west bank of the Raging River levee. The levee is wide and flat, and community members have stated that historically the levee has been used as a community trail. There is significant support to acquire the necessary easements to make the entire length of the levee accessible for a community trail. This route is clearly scenic and has strong recreational value. Dense forest and the scenic Raging River afford splendid views. It is remote and away from traffic noise and pollution. The number of trail intersections with motorized traffic is minimal in the first part of the trail route.

#### Disadvantages:

There are several serious drawbacks to this alternative, however. First, most of the trail corridor is located within private property, which would add considerable cost of



Forest route near Preston Snoqualmie Trail



Raging River near quarry



Approaching Snoqualmie River Bridge from the east

acquisition to the project. Second, the extremely steep slopes between the Preston-Snoqualmie Trail and the banks of the Raging River are unsuitable for trail development. Third, the crossing of Fall City Road on the curve before the Snoqualmie River Bridge would be difficult and may disrupt an already difficult traffic situation. Finally, a multi-use trail along the Raging River would be subject to an extensive regulatory permitting process, since the Raging River provides salmon habitat (see Appendix G).

At this time it is likely that additional development restrictions or prohibition will be placed on sensitive areas adjacent to streams and rivers with Puget Sound salmon, which are now listed as "threatened" under the ESA. It is conceivable that trail development along the Raging River would be prohibited by new regulations now being promulgated to implement the ESA.



Preston Fall-City Road corner David Powell Road, looking south



Preston Fall-City Road

#### Option 2

#### Route Description:

The trail follows the Preston-Fall City Road from the existing switchbacks at the Preston-Snoqualmie Trail through Fall City to the Snoqualmie River Bridge.

#### Advantages:

This route scored high in some of the critical factors. The route connects in a direct and efficient way, and it would travel for the most part along the public right-of-way.

#### Disadvantages:

The disadvantages of this route are the high traffic volumes and speeds in combination with the limited space available along Preston-Fall City Road. A recreational trail next to a highway would also interfere with already problematic traffic patterns as outlined in *the Pedestrian and Traffic Safety Recommendations to the Community* (May 2000). Severe adverse impacts from noise and pollution generated by motorized vehicles would leave the user with a diminished recreational experience. Even though the 60-foot right-of-way appears wide enough in most areas to accommodate the trail, long stretches of steep slopes along the eastern side of the highway are limiting factors.

#### Option 3

#### **Route Description:**

This route branches off the Preston-Snoqualmie Trail above the Heathercrest Neighborhood. It takes advantage of existing shoulders along residential roads and public open space with minimal intrusion into private property all the way down through the River View Neighborhood. Reaching the Preston-Fall City Road at the intersection with 334th Avenue SE, the route would travel south along the highway for about 100 yards then turn right onto a private road leading to the right levee of the Raging River. The route follows the levee to the Raging River Bridge, utilizes the existing sidewalk to cross the river, and then crosses Preston-Fall City Road to continue on the western levee of the Raging River (similar to Option 1) to the Snoqualmie River Bridge.

#### Advantages:

The utilization of existing right-of-way along low traffic residential roads with existing suitable shoulders keeps cost and impact low. The stretch along the Raging River is scenic and of high recreational value.

#### Disadvantages:

The portion of the route that travels along the Raging River has similar environmental issues as those discussed under Option 1 with regard to potential sensitive areas impacts as well as issues associated with private property acquisition. The crossing of the Preston-Fall City Road at the intersection with 334th Avenue SE and the stretch, which uses the narrow highway corridor, would compromise safety along this route. The first part of the route through residential neighborhoods, although convenient, has no special scenic or recreational value.



Heathercrest - Residential Road



Raging River Bridge, looking north



Preston Fall City Road near entry to private road leading to Raging River levee



SE Lake Alice Road looking north



Existing path connecting David Powell Road and Lake Alice Road



Fall City Cemetery

#### Option 4

#### **Route Description:**

Beginning similar to Option 3, the route would branch off at the corner of 338th Avenue SE and SE 52nd Street using a 30 foot-wide public right-of-way toward Lake Alice Road SE. It would then follow Lake Alice Road, passing the Fall City Cemetery on the right and connect via an existing path to SE David Powell Road. From the intersection with the Preston-Fall City Road the route heads north across the Raging River Bridge to SE 44th Place. It would continue on SE 44th Place and turn right onto 337th Place SE toward Quigley Park. It would then connect through the park to the Snoqualmie River Bridge.

#### Advantage:

This route would offer a variety of advantages with respect to physical and experiential aspects. The connection is convenient and efficient and is the second shortest route of all of the options identified. It connects the Preston-Snoqualmie Trail not only with downtown Fall City, but also links other destinations, such as the Fall City Cemetery and Quigley Park along the way. The trail corridor is almost entirely located on public right-of-way with minimal use of private property. It would have minimal or no impacts on sensitive areas. The grades are suitable for the typical mix of trail users. In many situations existing shoulders can be utilized and/or the roadway itself can be shared with motorized traffic on low-volume residential roads. The rural character, scenic vistas of the Cascade Mountains, and a varied topography contribute to the user experience on this route.

#### Disadvantages:

The route would travel along rural residential roads and frequently intersect with driveways. The stretch along Preston-Fall City Road is not as desirable for recreational use, but the road is wide enough to accommodate the trail safely in this location. A narrow portion of the SE David Powell Road would need improvements that may be subject to regulatory review and permitting.

#### Option 5

#### **Route Description:**

This route would originate from the existing trailhead parking area and join Option 4 at the corner of Lake Alice Road and the SE 52<sup>nd</sup> Street right-of-way.

#### Advantages:

This route would connect Fall City and the Preston-Snoqualmie Trail in a direct and efficient way, and also links the existing Preston-Snoqualmie trailhead, Fall City Cemetery, and Quigley Park destinations. The corridor varies between enclosed and open landscape situations and affords scenic vistas of the Snoqualmie Valley and the Cascade Mountains.

#### Disadvantages:

The upper part of Alice Lake Road SE has several curves and is somewhat steep, which results in limited sight lines in the present state of the roadway. Some construction would be needed to utilize the 60-foot right-of-way for the proposed trail. Similar to Option 4, the stretch along the Preston-Fall City Road is not as desirable for recreational use, although the road is wide enough to accommodate the trail safely. The narrow portion of the SE David Powell Road may need improvements that may be subject to regulatory review and permitting.



SE Lake Alice Road looking south towards Heathercrest entry sign



Existing path connecting David Powell Road and Lake Alice Road

SE David Powell Road



SE 43rd Street

#### Option 6, 6a

#### Route description:

This is the eastern-most route option. It would descend steep slopes beneath the Preston-Snoqualmie Trail to SE David Powell Road. From this point there are two different route options: Option 6 would simply follow David Powell Road to Preston-Fall City Road, and from there would follow Options 4 and 5. Option 6a would follow SE David Powell Road for a short distance and then branch off to follow the bank of the Snoqualmie River, passing the Snoqualmie River Campground and heading toward the Raging River in a westerly direction. The route would cross the Raging River on a new nonmotorized bridge connecting to SE 43rd Street and Preston Fall City Road. From there it would travel alongside the road to the Snoqualmie River Bridge.

#### Advantages:

Both route options are scenic, especially Option 6a along the Snoqualmie River. Both routes vary between open and closed landscape scenery and afford a good recreational experience.

#### Disadvantages:

The routes are somewhat long and indirect links. The steep slopes beneath the Preston-Snoqualmie Trail are unsuitable for trail use. The land along the slopes is also privately owned, which would lead to a high cost for property acquisition. Additionally, due to its proximity to the Snoqualmie River and the need for a new bridge across the Raging River, Option 6a would potentially impact sensitive areas and be subject to a regulatory review and permitting process similar to Options 1 and 3. It is unclear whether permits could be obtained for a new bridge. If so, the bridge would be a large and costly construction item, adding to the overall cost of the project.

## PART IV. CONCLUSIONS / RECOMMENDED ROUTES

#### **CONCLUSIONS**

After carefully evaluating each option via the process described in Part III "Route Selection" the differences in feasibility among the alternative routes became evident. Four out of six routes scored low in at least one of the critical factors (Appendix E).

For example, Option 2 scored low in the safety category because of its use of Preston-Fall City Road. The high traffic volumes, high speeds, and existing traffic congestion, as outlined in the *Pedestrian and Traffic Recommendations to the Community*, make this route potentially unsafe, a serious concern for trail planning.

Route Options 1, 6, and 6a fail to provide acceptable grades, despite their scenic value and convenience. Such steep slopes are unsuitable for trail development, even if they occur over only a portion of the trail route and constitute a fatal or disqualifying flaw of these trail routes.

Potential sensitive areas/habitat impacts are another serious concern with some routes. Options 1, 3, and 6a travel along the Snoqualmie River and/or the Raging River, two salmon-bearing rivers. As outlined in the King County Regional Trail Plan, Section III, "Trail Alignment Guidelines" (Appendix A) and as discussed in detail in Appendix G "Planning Context," sensitive areas should be avoided or circumvented. When this is not possible routes must be selected that minimize impacts and assure compliance with local and federal regulations. With Puget Sound salmon listed as "threatened" under the ESA, regulations are becoming increasingly restrictive with respect to development near aquatic habitats. A lengthy and complex regulatory review and permitting process with uncertain outcome may cause indefinite delay and possibly restrict existing trail uses along both of these rivers.

The degree to which the trail route utilizes private property results in significant differences in overall project cost

due to the expense of necessary acquisitions. Options 1, 6, and 6a bisect private property for most of their length. This also applies to Option 3. These routes may be significantly more costly than those utilizing public right-of-way. Major construction items, such as the construction of a new bridge in Option 6a, are another cost issue.

Two of the alternative routes, Options 4, 5, score sufficiently high with respect to the first four critical factors to qualify as potentially feasible routes. Both options score similarly in the development cost, scenic, and recreational value categories. Option 4 scored highest of all route options with 45 out of 70 possible points and is recommended as the most feasible route to connect the Preston-Snoqualmie Trail to Fall City.

Option 4 travels along public rights-of-way, which would keep the cost of acquisition of private property to a minimum. Utilization of existing roadway shoulders and sharing of low-traffic volume rural and residential roads are additional cost cutting measures. The connection is efficient, convenient, and sufficiently safe. Environmental impacts and permitting issues are not anticipated. The route also connects to the Fall City Cemetery where historic character and scenic location may be of interest to the local and regional visitor alike.

The purpose of this project is to develop two regional trail links. One link would connect Fall City with the Preston-Snoqualmie Trail, while the second link would connect the community with the Snoqualmie Valley Trail. In addition to these proposed new regional facilities, local trails within the Fall City community may also provide additional informal connections.

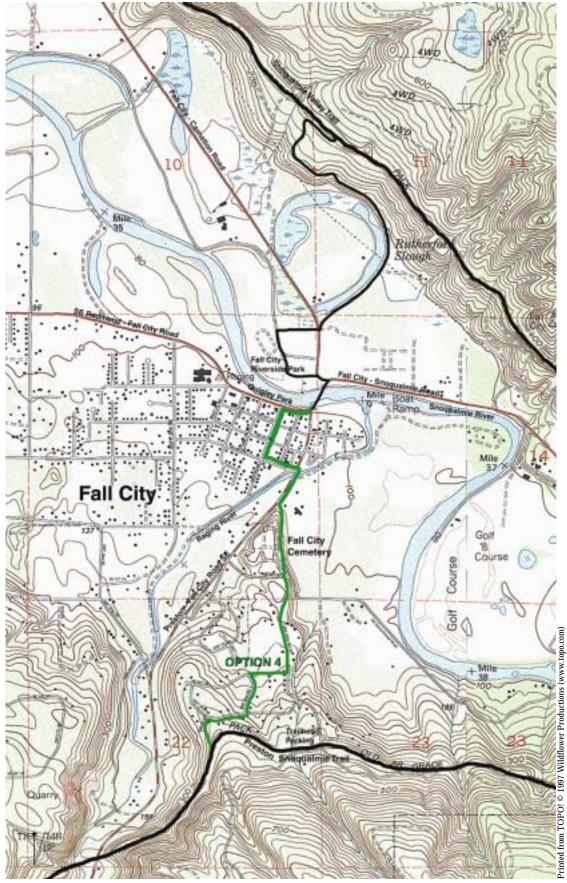


Figure 4 Preferred Routes

#### **RECOMMENDED ROUTE**

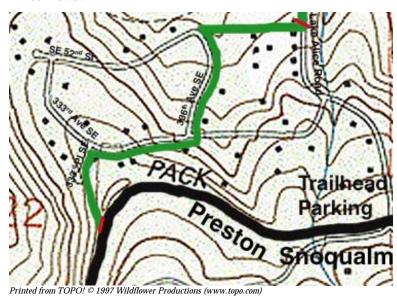
The recommended route for the northern trail link from Fall City to the Snoqualmie Valley Trail follows the route described in Part III of this study.

Based on the evaluation process described in this report, Option 4 qualified as the most feasible southern connection between Fall City of the Preston-Snoqualmie Trail.

In order to describe this route in more detail it has been divided into four segments. Each segment is illustrated by a map and applicable photographs.

#### Segment 1 - Preston-Snoqualmie Trail to SE Lake Alice Road

The trail begins at the Preston-Snoqualmie Trail south of the Heathercrest neighborhood. It travels along 333rd Place, turning right on 333rd Ave SE and down 336th Ave SE to the corner of SE 52nd Street. From here the route turns east along a 30-foot right-of-way towards SE Lake Alice Road.



The low traffic residential streets with wide shoulders and relatively few driveways lend themselves for trail use. Some improvement to the existing shoulders, installation of signage and striping should be considered. The SE  $52^{\rm nd}$  right-of-way is currently overgrown and needs clearing, grading and surfacing.



333<sup>rd</sup> Place, looking south toward Preston-Snoqualmie Trail



336th Ave SE looking north



SE 52<sup>nd</sup> right-of-way seen from Lake Alice Road



Lake Alice Road looking north from SE 52<sup>nd</sup> right-of-way



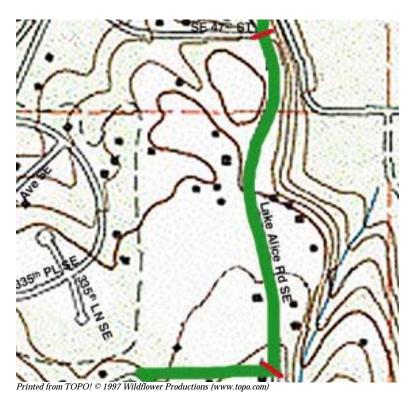
Vista from Lake Alice Road



Rural character, Lake Alice Road

## Segment 2 - SE Lake Alice Road/SE 52<sup>nd</sup> Street to SE 47<sup>th</sup> Street

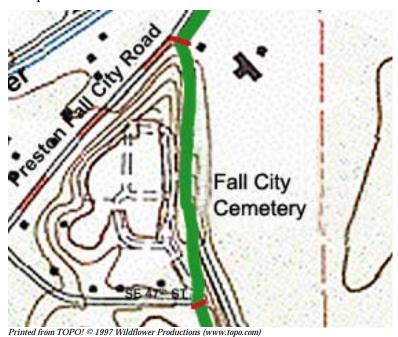
From the SE  $52^{nd}$  right-of-way the route turns north along SE Lake Alice Road to the corner of SE  $47^{th}$  Street near the Fall City Cemetery



The 60-foot right-of-way of SE Lake Alice Road has good visibility and grades are suitable for trail development. The pleasant rural character and view of the Cascade Mountains add to the recreational experience. A street crossing may be necessary before SE 47th Street in case the trail occurs either on the west side or both sides of SE Lake Alice Road, since the trail will eventually have to continue east of the Cemetery.

#### **Segment 3 – SE 47th Street to Preston-Fall City Road**

At the corner of SE 47<sup>th</sup> Street the trail route leaves SE Lake Alice Road and takes the existing path down the wooded slope east of the Cemetery connecting to SE David Powell Road. From here it heads west along SE David Powell Road until it reaches the Preston-Snoqualmie Road.



A path linking SE Lake Alice Road to SE David Powell Road is already in place. SE David Powell Road has low traffic volumes and is therefore suited to accommodate motorized and non-motorized traffic. However, this stretch of SE David Powell Road is rather narrow with steep banks on either side. A widening of the road corridor would include the construction of a retaining wall.

In this segment the trail captures one of Fall City's landmarks, the Fall City Cemetery. The area's historic character and the scenic vistas of the Cascade Mountains make the Cemetery a destination of interest for the local and regional visitor alike.



Fall City Cemetery



Connecting path near cemetery

Raging River Bridge on Preston-Fall City



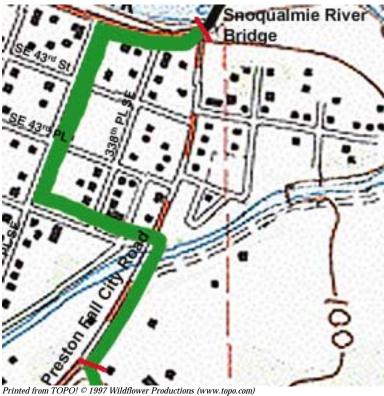
Quigley Park



Snoqualmie Bridge (SR 203)

#### Segment 4 - Preston - Fall City Road to Snoqualmie **Bridge**

From the intersection of SE David Powell Road with Preston-Fall City Road the trail would stay on the eastern side of Preston-Fall City Road until shortly before the Raging River Bridge. Crossing Preston-Fall City Road to SE 44th Street, the route shares the spacious, low traffic-volume streets through town toward Quigley Park. The route would then connect through Quigley Park to the Snoqualmie River Bridge.



This segment through town includes more interaction with motorized traffic. A crossing is needed to allow trail users to safely get to the existing sidewalk on the eastern half of the bridge and make the connection onto SE 44th Place. Depending on the routing through town historic buildings and landmarks could be captured along the route and Quigley Park may be used as a potential resting location for the regional trail user.

#### **COST ESTIMATE**

The following is a baseline planning cost estimate. Major cost items, such as possible construction to improve the crossing on the Snoqualmie River Bridge, cost for street crossings with signalization, and the cost for a retaining wall at SE David Powell Road are not included. The estimate is based on a typical unit price for trail construction specifying a general cost for a trail per linear foot.

ITEM & DESCRIPTION	ITEM TOTAL	SUBTOTAL
A. NORTHERN CONNECTION  Snoqualmie Bridge Improvements (unknown)  Snoqualmie Bridge to Fall City Riverfront Park  Fall City Riverfront Park to SE 39th Place  Crossing (without traffic lights)  TOTAL A	21,000 15,000 15,000	51,000
B. SOUTHERN CONNECTION - ROUTE 4		
SEGMENT 1 - PRESTON SNOQUALMIE TRAIL TO SE LAKE ALICE ROAD		
Preston Snoqualmie Trail to SE 333rd Place SE 333rd Place to corner of 336th Avenue SE / SE 52nd Street SE 52nd right-of-way to SE Lake Alice Road	13,000 32,000 38,000	83,000
SEGMENT 2 - SE 52ND STREET/SE LAKE ALICE ROAD TO SE 47TH STREET		
SE 52nd Street/SE Lake Alice Road to SE 47th Street Crossing (without traffic lights)	95,000 15,000	110,000
SEGMENT 3 - SE 47TH STREET TO PRESTON FALL CITY ROAD		
SE 47th Street to SE David Powell Road SE David Powell Road to Preston Fall City Road Retaining Wall (unknown)	10,000 55,000	65,000
SEGMENT 4 - PRESTON FALL CITY ROAD TO SNOQUALMIE BRIDGE		03,000
SE David Powell Road/Preston Fall City Road to SE 44th Place Crossing (without traffic lights) SE 44th Place to Quigley Park Crossing (without traffic lights) Quigley Park to Bridge	60,000 15,000 10,000 15,000 15,000	115,000
TOTAL B	:	373,000
PROJECT TOTAL:		\$424,000
This estimate is based on a typical unit price for trail construction.		



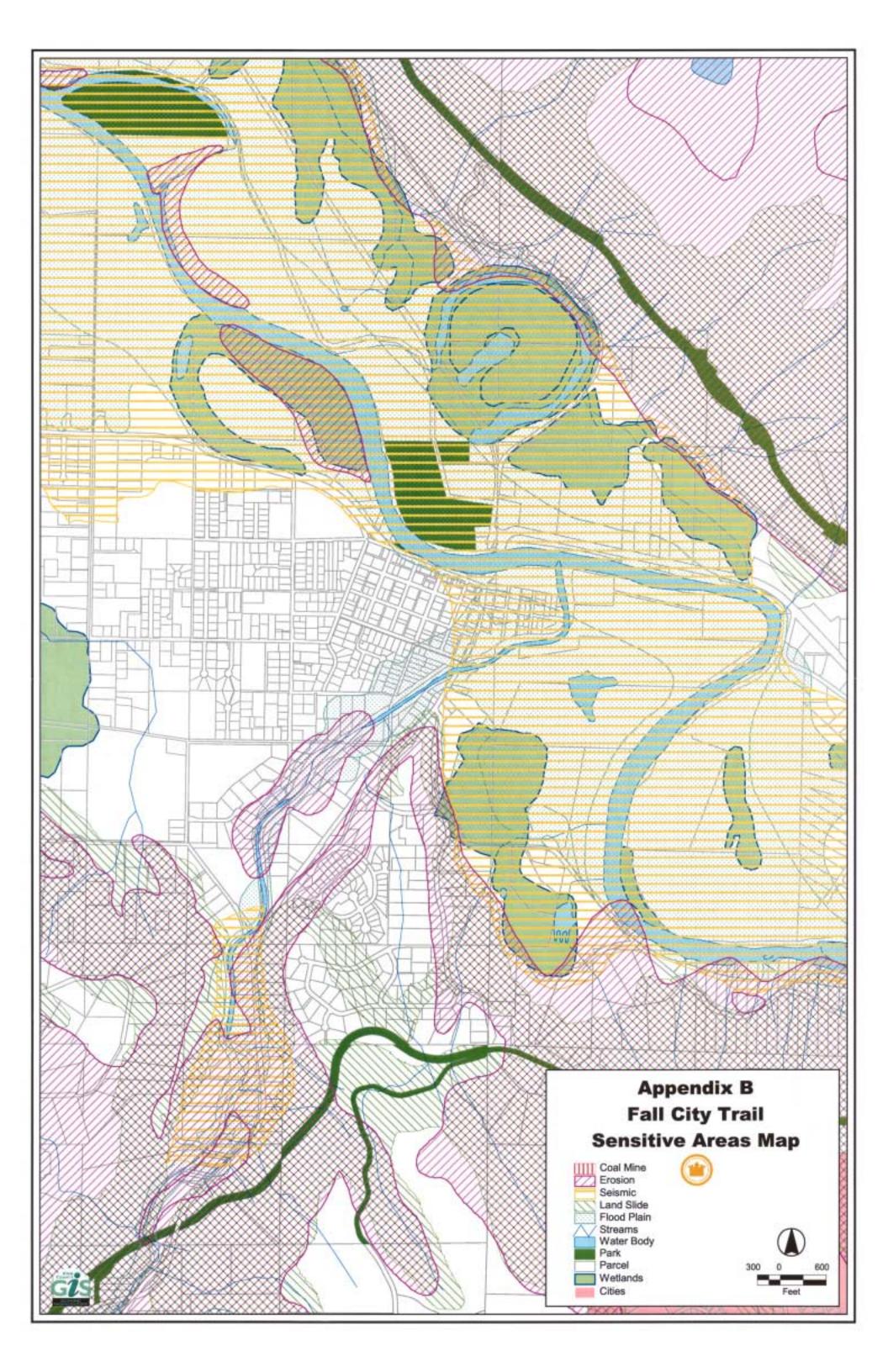
# Section III Trail Alignment, Design and Construction Guidelines

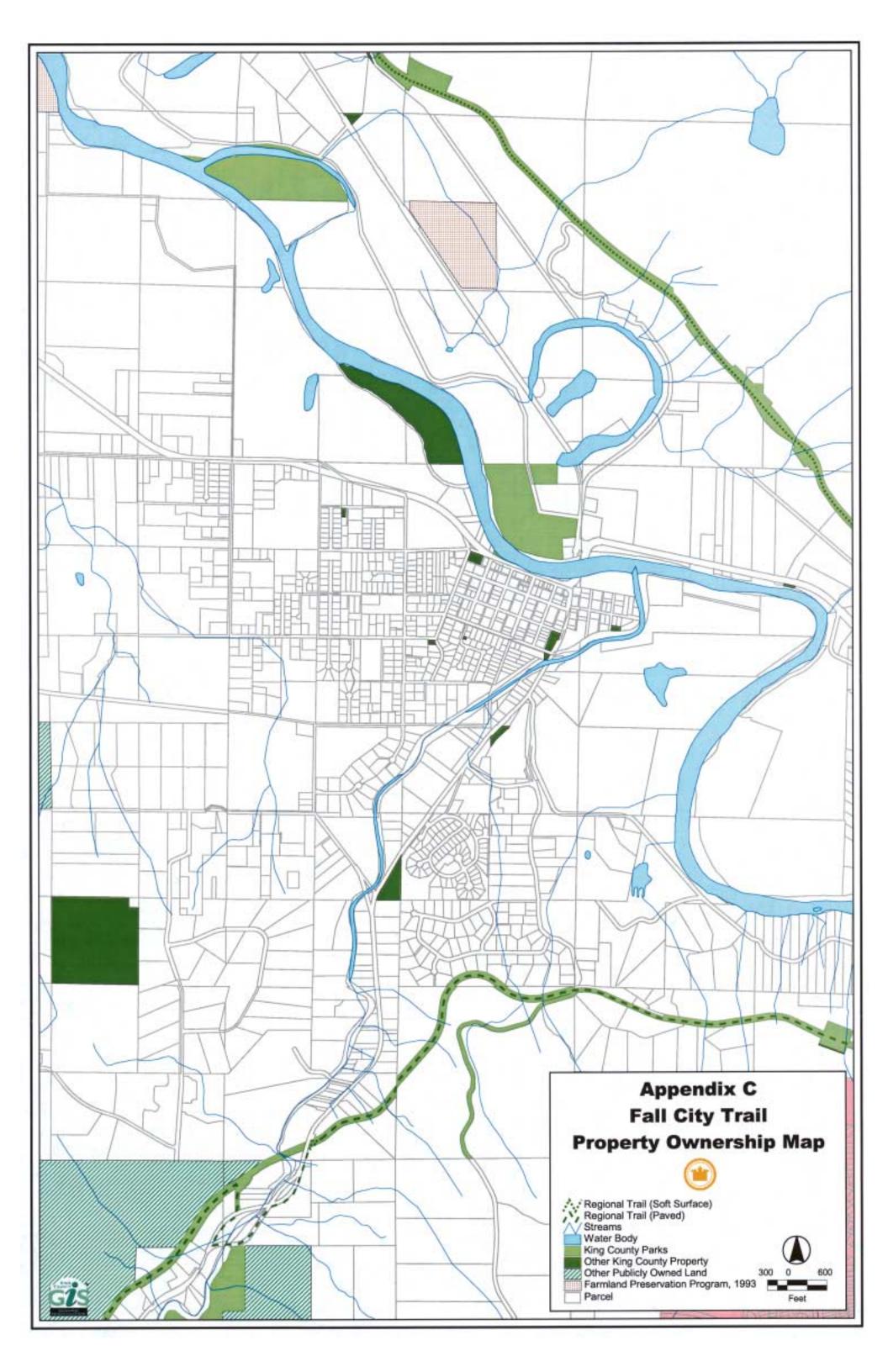
This section summarizes the criteria and characteristics of each trail type and provides guidelines for trail development including alignment, widths, surfaces, grades and clearing limits of various County trail types. Section IV is a discussion of management and maintenance of trails. A range of trail development costs is also included.

#### **Trail Alignment and Route Selection**

The plan identifies the regional trail corridors. The following criteria are used to evaluate alternatives and select the specific trail route within the identified corridors. Trail routes should take the most direct route appropriate for the purposes of the trail and its intended uses after consideration of the following criteria.

- 1.) Topography and Grade. The trail route should consider topography taking into consideration the final grades to which the trail is to be developed, whether slopes encountered are suitable for trail development or if it is feasible to cut switchbacks or rest areas into steeper slopes. A bicycle trail's final design grade should not exceed 4% to 5%, for most trails. It is desirable that sustained grades be held to 2% to 3%. Very short sections of much steeper grades, such as 10% to 15% over 20 to 40 feet may be tolerated. Grades for equestrians and pedestrians may be up to 18%. The guidelines for bicycle use are also applicable to accessibility standards except for the steeper grades. Grades between 5% to 12% are considered ramps and must have rest sections every 20 feet.
- **2.) Vegetative Patterns.** The trail route should avoid or circumvent, if possible, rare or endangered plants, plant communities that indicate wetlands, whether the ground is wet or not, and unique examples of plant associations.
- **3.) Soils.** The trail route should avoid or circumvent, if possible, soils indicative of high erosion potential, wetlands, and subsidence, slumpage, or other instability of a sensitive nature.
- **4.) Drainage Patterns.** The trail route should avoid or circumvent, if possible, drainage patterns that indicate surface or underground water is directed toward or otherwise affects the route.
- **5.)** Sensitive Areas. The trail route should avoid identified sensitive areas, if possible. If not possible, routes should be selected that minimize impacts and assure compliance with regulations.
- **6.) Safety.** The trail route should minimize street and driveway crossings, provide adequate sight lines and road crossing, and avoid steep slopes inappropriate to intended uses.
- **7.) Acquisition and Development Costs.** The trail route should minimize the costs of acquisition and development such as those of clearing land, crossing streams or ravines, providing spatial buffers, and navigating slopes.
- **8.) Impact From and On Property and Development.** The trail route should avoid areas with noise, conflicting traffic patterns, water runoff, and other similar liabilities from nearby property and development and provide buffering if such liabilities are unavoidable. The trail route selected should minimize effects on traffic patterns, privacy, safety, and other similar liabilities to impacts to nearby property.





#### **APPENDIX D**

ROUTE	1	2	3	4	5	6	6a
CRITERIA	-	_		-			
SAFETY* - Conflicts with motorized traffic - Visibility/Security	8	0	6	6	4	6	8
DEVELOPMENT COST* - Construction cost of trail incl. bridge and road crossings	8	4	6	6	6	6	0
AVAILABILITY OF ROW* - Sufficient width of corridor - Private vs. public property	2	10	4	8	10	4	2
PERMITTING / SENSITIVE AREAS* - Permitability - Degree of impacts on sensitive areas, wildlife etc.	2	8	2	10	10	8	0
TOPOGRAPHY - Safe accessible grades	2	5	3	3	2	1	1
ADVERSE IMPACTS / LIABILITIES - Trail effecting traffic, privacy - Effects from adjacent use or property on the trail, noise etc.	3	1	2	2	2	2	2
SCENIC VALUE - Spatial sequence - Views from & onto the trail	4	1	3	3	3	4	5
RECREATIONAL VALUE - Potential use matching user needs - Opportunities for interpretation	4	1	3	2	2	3	4
CONNECTIVITY - Efficient, direct connection - Links destinations, parks, open space - Convenient access points	3	4	3	3	4	3	3
MULTI-USE POTENTIAL  - Allows for adequate routing & surfacing to accommodate typical user mix (pedestrians, bicyclists, equestrians)	1	2	2	2	1	3	3
TOTALS	37	36	34	45	44	40	28
RANKING	4	5	6	1	2	3	7

<sup>^</sup>Total points 70 maximum
\*Items scored at 200 %

#### **APPENDIX E**

#### **EVALUATION / SCORING**

SCORE	5	31	0
CRITERIA			
SAFETY*	No conflicts with motorized traffic No, or few crossings	Occasional road/traffic interception	Entirely alongside traffic Multiple crossings
DEVELOPMENT COST*	Corridor essentially in place No major construction items	Some larger construction items required	Major construction needed Modification and/or new con- struction of bridges, crossings
AVAILABILITY OF ROW*	Trail corridor entirely on public ROW	Some portions of trail along easements, private and public land	All or majority of trail corridor within private property
PERMITTING/ SENSITIVE AREAS*		Moderate/occasionally adjacent to sensitive areas Some degree of permitting needed	Highly sensitive corridor Permitting difficult to impossible
TOPOGRAPHY	Completely level area	Moderate / occasionally steeper grades	Unsuitably steep slopes
IMPACTS /	No impacts on the trail from adjacent uses (noise, etc.) Trail does not impact traffic and/or privacy	Some adverse impacts on the trail Some interference with traffic patterns Some intrusion of privacy	Multiple adverse impacts from and onto the trail (noise, traffic, intrusion of privacy)
SCENIC VALUE	Very scenic Great views, varied spatial sequence	Moderately scenic Mix of pleasant/unpleasant views	No/very little scenic value Unsightly areas
RECREATIONAL VALUE		Moderate match of potential use and user needs	Questionable match of potential use and user needs
CONNECTIVITY	Efficient, direct connection linking destinations, parks, open space Multiple convenient access points	Somewhat direct connection Some links to destinations	Inefficient, indirect route No additional links
	All user types can be readily accommodated (pedestrians, bicyclists, equestrians)	Two users can be accommodated (pedestrians, bicyclists)	One user can be accommodated (pedestrians)

Scoring: Range 0 to 5 points for a maximum of 70 points per route \* Items scored at 200%

#### **APPENDIX F**

#### **COMMUNITY TRAIL**

Even though Option 4 has been determined to be the most feasible route to link Fall City to the Preston-Snoqualmie trail, the results of this study do not exclude any of the other five trail routes from being pursued as trails within Fall City. In fact, the King County Parks Department is supportive of continued trail development in the Fall City area. The levee along the Raging River would make an excellent community trail which could be pursued in the future. If the King County were to pursue making a community trail on the levee along the Raging River then the following steps need to be taken:

- A. King County would need to look more closely at non-motorized facilities within the Fall City community.
- B. King County would need to dedicate monies to expand the existing public access of the Koba Gardens properties. Currently, Koba Gardens homeowners who live along the levee have an easement that allows only pedestrian access. This easement would need to be expanded to include other trail users, such as cyclists and horse riders.
- C. King County would need to dedicate monies to acquire easements for public access to the properties that are not bound by the existing Koba Gardens Development pedestrian access.

Preliminary estimates for this project prepared by the King County Property Services Division indicate that the cost for acquiring the easements along the levee to construct a trail could be approximately range of \$152,000 to \$285,000.00

This figure is based on several assumptions:

- The properties that currently hold a pedestrian easement for the community would require an expanded easement to provide access for cyclists and pedestrians.
- The area of the acquisition would be 3,800' in length and 20' in width.
- The property estimates are based on a current value of \$2.00 to \$4.00 per square foot.

If any of the above property rights could not be acquired through negotiation, the County would then need to examine alternative locations or seek condemnation authority.

#### APPENDIX G PLANNING CONTEXT

Planning and land use review processes will influence the design, location, and development of the proposed regional trail links between Fall City and the Snoqualmie Valley Trail and the Preston-Snoqualmie Trail. The design and location of the two trail links must be consistent with the goals and policy direction provided King County Park System plans and the *King County Comprehensive Plan* and related subarea plans. The development of the trail links will also be subject to land use and environmental review processes and regulations, which may alter, condition, or even prohibit the development of the trail projects to ensure compatibility with surrounding land uses and to minimize any identified environmental impacts. This section describes the planning and regulatory context influencing the regional trail's development

#### **Relevant Plan Goals and Policies**

The overall planning context is provided by the *King County Regional Trails Plan* (1992), *King County Park, Recreation, and Open Space Plan* (1996), *Fall City Subarea Plan* (1999), *Snoqualmie Valley Community Plan* (1989), and the *King County Comprehensive Plan* (1994). Each of these documents provides direction, as follows:

#### **King County Regional Trails Plan (1992)**

#### Section 1: Goals and Objectives

The goal of the Regional Trail System is to provide a safe and pleasurable network of County trails this is enhanced by other trail systems in city and community settings within and outside the county.

This goal for trails in King County translates into the following working objectives:

- 1. Provide a continuous network of high volume, safe, pleasurable north-south and east-west trails.
- 2. Provide and encourage connections with community trails, either privately owned or of other jurisdictions, wherever they may exist in the County.
- 3. Provide trail loops of varying length to create a variety of recreational opportunities for users with different skills, and which may be used for commuting purposes.
- 4. Provide for the maximum number of trail uses after considering the carrying capacity of the land, aesthetic values, population pressures, available resources and safety issues.
- 5. Provide routes that a) connect with parks and open space; b) provide access to public shoreline areas; c) incorporate views and other special features of scenic, historic, or architectural interest; and d) connect with METRO park and ride lots, schools, and other activity centers.

The following are implementation strategies that will support the plan objectives:

- 1. Continue to acquire and develop trail sections to complete the missing links within the large-scale network.
- 2. Foster links of the large-scale network with trails from surrounding communities by providing trail routes that connect with other trails, parks, community centers, or other appropriate activity centers.

- 3. Develop additional trails to provide a variety of pleasant recreational opportunities within the large-scale network; any development of areas adjacent to trails should be compatible with and enhance the recreational opportunity.
- 4. Develop nodes along trails to provide places to rest, picnic, and enjoy the trail environment.
- 5. Provide trailhead facilities with drinking fountains, restrooms, and parking for cars, trucks, and horse trailers, as appropriate to the trail type.
- 6. Provide adequate maintenance.
- 7. Provide users with educational information about safe use of trails.

#### Other trails and trail programs [Excerpt, p. 4]

The desired network of regional trails depends on connections of King County trails with other trails of a formal or informal nature. Two significant opportunities for these connections are community trails and the King County Roadshare program.

Community trails are the most difficult type of trail to identify, monitor and preserve. They are primarily informal, soft surface trails which appear on public and private property throughout the County. These trails can provide local access to the regional trail system as well as extensive travel through neighborhoods. It is not feasible for the County to acquire the total network of community trail right-of-way due to the extent and expense of these corridors. However, when an inventory of community trails is available, the County can attempt to provide some measure of protection of the trails through the development review process, and can augment the system by acquiring easements or other necessary or desirable rights.

The King County Roadshare Program was established within the Department of Public Works in 1987. The program includes development of permanent, separate trails within County road rights-of-way; development of road shoulder trail connectors between uncompleted sections of the Regional Trail System; surface and non-surface trail crossings of County roads; and establishment of striped road shoulder bicycle lanes on County Roads.

The County Parks Division becomes involved in the RoadShare program when an off road trail intersects with a County Road. The County Parks Division will continue to work closely with RoadShare to ensure the development of pleasant and safe trails within the County.

#### **Applicability**

The *Regional Trail Plan* provides general guidance with respect to the development of regional trail facilities similar to the two proposed trail links at Fall City. Indeed, the intent of the trail projects is to fulfill the goals of the *Regional Trail Plan*. Whichever north and south trail alignments are eventually selected, their characteristics will have to meet the policy criteria specified in the *Regional Trail Plan*, this feasibility study takes regional planning goals and policies into account in its recommendations. For example, the final proposed trail alignment should offer a "safe" and "pleasurable" experience which provides a continuation of the existing regional trail network. These routes should seek to "...a) connect with parks and open space; b) provide access to shoreline areas; c) incorporate views and other special features of scenic, historic, or architectural interest; and d) connect with...other activity centers. The proposed trails should foster links with the large-scale regional network with trails from surrounding communities (Fall City). The trails should also be compatible with and enhance recreational opportunities.

The *Regional Trails Plan* recognizes two aspects of a developing regional Countywide trail system. First, trails may be incorporated within road rights-of-way (with references to the Roadshare program) over various alignments throughout the developing regional system. Secondly, it notes the presence of a primarily "informal" network of existing community trails or routes that exist within communities such as Fall City, which provide local access, but are not a formal part of the County's regional trail system. The *Regional Trails Plan* notes that it may not be feasible to acquire such paths, although it may be appropriate to recognize these routes and to try to preserve them.

#### King County Park, Recreation, and Open Space Plan (1996)

#### IV. The Systems

#### Functional Systems - Regional Trail System

The King County Regional Trail Plan was adopted in 1992 to provide for continued acquisition and development of the regional trail system. The Plan identifies a regional network of trails that are a major element of the County's open space system. The 1989 Open Space Bond funds contributed significantly toward making this system a reality.

S-104 King County should complete a regional trail system, which includes connections between trail corridors to form a county-wide network.

S-105 Regional trails should be planned and designed to accommodate all users, except when constrained by corridor width or physical characteristics.

S-106 Master Plans should be prepared for trail corridors in King County. These plans should identify users, trail designs, and maintenance costs.

#### **Applicability**

These three policies provide additional direction for the continuing development of the regional trail system. Policy S-104 specifies that the County should complete its regional trails network and provide connections between trail corridors. The proposed Fall City regional trail linkages are consistent with this policy. The proposal also seeks to satisfy policy S-105, which states that regional trails should be planned to accommodate all users. Finally, this feasibility study should be considered part of an overall master planning and design effort for these two trail projects, as specified in policy S-106.

#### Fall City Subarea Plan (1999)

King County developed a subarea plan for the rural town of Fall City. The project was begun in August of 1998 and completed in 1999. An eleven member citizen advisory committee assisted with the plan's development. The subarea plan revisited land use designations, town boundaries, and comprehensive plan policies regarding Fall City which grew out of the Snoqualmie Valley Community Plan adopted in 1989. It was determined that the Fall City community is not supportive of the degree and type of growth that was envisioned by the Community Plan. There are also development constraints due to limited water supply, lack of public sewers, and environmentally sensitive areas.

#### Sensitive Areas

There are significant wetland and floodplain areas in this part of the Snoqualmie Valley. The Snoqualmie River and the Raging River coverage at Fall City. Both rivers are Class 1 and are significant salmon spawning areas...

Areas of steep slopes which are subject to erosion and landslide hazards are located south and east of Fall City, primarily within the floodplain areas, and also within the northwest and northeast corners of Fall City. There are erosion hazard areas along portions of the rivers going through the valley...
(p. 11)

#### Parks, Trails, and Open Space

PTO-1 King County should expand soft surface pedestrian, equestrian, and bicycle trail opportunities serving Fall City.

PTO-2 King County should conduct a trail feasibility study for the Preston-Fall City corridor which reviews options and recommends ways to connect Fall City to the Snoqualmie Valley Trail and the Preston-Snoqualmie Trail.

#### **Applicability**

The *Fall City Subarea Plan* provides additional guidance regarding planning and development in the Fall City community. Sensitive areas and parks/trails/open space sections in the plan have general relevance to the proposed regional trail linkages.

The Fall City Subarea Plan notes the unique wetland and floodplain sensitive areas associated with the Fall City locale. Both the Snoqualmie River and the Raging River are classified as Class 1 waters and provide significant salmon spawning habitat. In addition, the Fall City Subarea Plan notes steep slopes within the Fall City area which present potential erosion hazards, particularly to associated rivers. Plans for the selected regional trail alignment must be sensitive to these natural environmental constraints, minimizing disturbance and potential impacts.

Two parks/trails/open space policies are also articulated. The proposed creation of regional trail linkages from Fall City is consistent with both policies PTO-1 and PTO-2.

#### **Snoqualmie Valley Community Plan (1989)**

#### LAND TRAILS

Recreational trails in the planning area draw users from the greater Puget Sound region as well as area residents. The trails provide access to wilderness areas and parks, and link rural residential areas and Rural Activity Centers. Trails can be defined as regional or local depending on their function and length. Trails that provide access within individual subdivisions, or to nearby parks or schools are considered local. Regional trails generally follow major travel or scenic corridors, connecting to major parks, communities or other trails.

#### Regional Trails

SQP 143 KING COUNTY SHALL PUT HIGH PRIORITY ON THE ACQUISITION AND DEVELOPMENT OF A REGIONAL TRAIL SYSTEM LINKING THE SNOQUALMIE VALLEY PLANNING AREA TO OTHER PARTS OF THE COUNTY

In the early 1970s the "Sound to Mountain" trail concept was developed. Through a series of linked up trails, a route between the saltwater shoreline of Elliott Bay to the summit of Snoqualmie Pass was envisioned. Also in the early 1970s, the Chicago-Milwaukee Railroad abandoned its line through the

Snoqualmie Valley and offered its right of way for sale. King County bought the right-of-way to provide a link in the Sound to Mountain trail. Since trail development funds were not available at that time, the County could only make minor modifications to ensure public safety. King County is committed to the completion of this link in the Sound to Mountain Trail system and will continue to seek ways to achieve this goal.

*The following projects are part of the Sound to Mountain Trail system:* 

#### **Project Descriptions** [Excerpt]

#### • Snoqualmie Valley Trail (Higher Priority)

Complete the development of a pedestrian, equestrian, mountain bicycle unpaved trail as specified in the master plan, located on the old Chicago-Milwaukee Railroad right-of-way which runs north/south from the King/Snohomish county line to the City of Snoqualmie.

#### • Preston to Snoqualmie Trail (Lake Alice Trail) (Higher Priority)

Acquire and develop additional trial right-of-way to complete the trail link from Preston to the town of Snoqualmie. The trail runs east and west with connections to the East Sammamish and Snoqualmie Valley trail system.

SQP 146 RIGHT-OF-WAY OR EASEMENTS ALONG UTILITY CORRIDORS, AND ABANDONED RAILROADS ARE POTENTIAL TRAIL CORRIDORS AND SHOULD BE EVALUATED BY THE COUNTY FOR FUTURE USE.

There are a number of utility easements, rights-of-way and abandoned railroad grades that cross the Snoqualmie planning area. Many of these are already informally used as trails. Others along very scenic and accessible corridors have potential for trail use. These corridors are shown on the plan maps.

#### **Applicability**

The *Snoqualmie Valley Community Plan* provides early direction with regard to trail planning and development within the study area. The introduction to the "Land Trails" section of the *Community Plan* provides an overview of the approach to trails development within this area, including Fall City. It notes that trails can be defined as "local," providing access to nearby parks or schools or "regional," following major travel corridors and connecting major parks, communities, and other trails. The proposed trail linkages from the Snoqualmie Valley Trail and the Preston-Fall City Trail to Fall City are considered regional trails.

Policies SQP 143 and SQP 146 provide a framework for regional land trail development. Policy SQP 143 within the Regional Trails subsection provides a context for regional trail development in the study area, noting and describing the "Sound to Mountain" trail concept. The development of the Snoqualmie Valley Trail and the Preston-Fall City Trail is designated as "Higher Priority" in the *Community Plan*. The proposed Fall City trail linkages connect to and further develop these higher priority regional trails. Policy SQP 146 recognizes the availability of public right-of-way which may be used for designated trails.

The proposed Fall City trail linkages would be classified as "regional land trails." The various proposed trail alignments further the conceptual goals of regional trail development in this area and most make use of public rights-of-way along portions of their alignments.

#### Other Snoqualmie Valley Community Plan Policies in Context

Additional policies in the *Community Plan* which address "local trails" have been considered in the context of these proposed regional trails:

SQP 144 A COMMUNITYWIDE TRAIL SYSTEM FOR PEDESTRIANS, EQUESTRIANS AND BICYCLISTS SHOULD BE DEVELOPED. THIS TRAIL SYSTEM SHOULD CONNECT REGIONAL TRAILS WITH LOCAL TRAILS AND WALKWAYS.

King County Natural Resources and Parks Division continues to be a major provider of regional trails in the planning area. However, a secondary or more local system of trails exists informally and could become more established through efforts by the County and volunteer user groups. Community members identified roads, utility corridors, and informal trails often used by equestrians, bicyclists, and pedestrians. Although the County would not purchase or maintain these informal routes, County roads can be signed and shoulders widened to accommodate trail users. The County can accept dedication of right-of-way in new subdivisions, short subdivisions, planned unit developments, and through the bonus density system or other incentives or regulations. Volunteer user groups can obtain agreements from property owners to use informal trails across private property or along utility corridors. These groups have and should continue to provide trail maintenance on a voluntary basis.

### SQP 145 THE ESTABLISHEMENT AND DESIGN OF COMMUNITY ORIENTED LOCAL TRAIL SYSTEM SHOULD INCLUDE:

- 1. ROUTES WHICH CONNECT MAJOR RESIDENTIAL AREAS WITH RECREATION AREAS INCLUDING PARK AND OPEN SPACE AREAS;
- 2. ROUTES WHICH PROVIDE ACCESS TO PUBLIC SHORELINE AREAS;
- 3. ROUTES WHICH INCORPORATE VIEWS AND OTHER SPECIAL FEATURES OF SCENIC, HISTORIC, OR ARCHAELOGICAL INTEREST;
- 4. ROUTES WHICH PROVIDE ACCESS TO AND CONNECT SCHOOLS.

Routes may traverse areas with development limitation areas when they can be developed without damage to hazardous or fragile natural areas. Routes may run parallel to the outside edge of riparian zones if they remain out of fragile bank areas. Dedicated trail easements should be a minimum of 25 feet in width to accommodate hikers, equestrians and bicyclists. This 25 feet will allow for passing with safety and provides enough space to buffer the trail from surrounding land uses when necessary. Steep slope areas, stream or wetland areas may require more right-of-way.

These two policies provide further insight into the County's approach to local community trails in the *Snoqualmie Valley Community Plan*. While not directly applicable to the proposed regional Fall City trail linkages, they do provide guidance for establishing Fall City's informal trail network in addition to the proposed Fall City regional trail links. For example, the existence of an informal community trail along the Raging River Levee might not provide the most appropriate route for the regional trail link between the Preston-Snoqualmie Trail and Fall City, but it may remain an important community trail, which could be used as an adjunct to the regional trail and maintained voluntarily by the Fall City community.

"River trails" are also described in the *Snoqualmie Valley Community Plan*. These "trails" are actually waterways which include the Snoqualmie and Raging Rivers. The *Community Plan* recognizes the important scenic and recreational value of these and other rivers in policy SQP 149. The Plan also notes in policy SQP

150 that where King County controls access to these rivers, that these areas should be "clearly identified and marked" in order to alleviate problems with trespass. While the policy also notes that access should be a priority for state and federal government agencies, this goal must now be balanced against the need to protect habitat for salmon and other threatened species in study area rivers, as required by the Endangered Species Act. The proposed regional Fall City trail links are not river trails although some alignments reviewed by this study (Southern Connection Options 1, 3, and 6A) closely follow portions of the Raging and/or Snoqualmie Rivers.

Policies addressing both "local trails" and "river trails" are not strictly applicable to the proposed regional Fall City trail linkages, although they exist within the context of trails development within the study area. Consideration of such amenities help bracket the discussion regarding the appropriate location and character of the proposed regional trails, however.

#### **King County Comprehensive Plan (1994)**

#### Chapter 7. Natural Environment

#### C. Shorelines

NE-308 Development within designated Shoreline Environments shall preserve the resource and ecology of the water and shorelines, avoid natural hazards, promote visual and physical access to the water and preserve archaeological, traditional cultural resources and navigation rights. Protection of critical areas shall take priority over visual values and physical access.

#### Chapter 9, Transportation

#### A. Land Use Assumptions

- T-204 The transportation system in the Rural Area and Natural Resource Lands should be consistent with their rural/resource character. Improvements should emphasize operations, safety, and maintenance.
- T-501 The transportation service areas and service strategies described in the following table should be used to direct future transportation improvements and services.

Non-motorized transportation mode service strategies are listed in the table under Transportation Service Area 5 (Rural Area and Natural Resource Lands) and include:

- *Integrated nonmotorized projects with roadway improvements;*
- Focus on shoulder improvements and shoulder development;
- Provide multi-purpose trail facilities which address transportation needs.

#### G. Nonmotorized Transportation

T-531 Pedestrian and bicycle transportation should be promoted countywide to increase safety, mobility and convenience for nonmotorized modes of travel. These efforts should emphasize the ability on nonmotorized modes to extend the efficiency of regional transit, promote personal mobility in a range of land use areas and expand the transportation alternatives available to the public.

- T-532 King County should include nonmotorized transportation facilities when general transportation improvements are made, including road construction, reconstruction, subdivision development and development of new transit systems.
- T-533 King County should identify and prioritize the implementation of projects to improve nonmotorized safety, access and mobility.
- T-534 New land use plans, subdivisions and urban planned development proposals should include project proposals which enhance nonmotorized mobility and access.
- T-535 Road design and traffic control of residential streets should priority to pedestrian and bicyclists while allowing automobile access to residences.
- T-536 The Neighborhood Traffic Safety Program should be expanded to have a areawide focus.
- T-537 Unused rights-of-way should be inventoried and developed as pedestrian, bicycle, and Americans With Disabilities Act connectors.
- T-538 King County design standards should allow flexibility in selecting features which provide dedicated pedestrian, bicycle, and Americans With Disabilities Act facilities.

#### Chapter 10 Parks, Recreation and Open Space

#### I. King County's Evolving Role

PR-101 King County is evolving as the provider of regional park and open space systems, facilities and services and as a leader in establishing partnership with other jurisdictions. The future focus of open space acquisition will be to identify and link park, open space, wildlife and waterway opportunities to create continuous open space corridors and recreational opportunities and to conserve the County's natural systems. The Regional Trail System and regional multi-use parks and athletic complexes will also be emphasized.

#### II. Regional Parks, Recreation and Open Space

PR-205 King County will advance a functional system of regional active parks and recreational facilities to include sites and facilities that attract users from beyond the geographic limits of individual neighborhoods and communities and are of a size, uniqueness of feature or character and are equitably distributed and/or are important parts of systems that best function as a unit or cross jurisdictional boundaries.

#### **Applicability**

The proposed regional trail links are addressed in several sections of *the King County Comprehensive Plan*, which was created in response to and complies with the Washington State Growth Management Act. Policies under the Natural Environment, Transportation, and Parks, Recreation and Open Space chapters provide guidance.

NE-308 under "C. Shorelines" in Chapter 7, "Natural Resources" sets the County's high priority on the protection of shoreline environments. The policy notes that protection of critical areas takes priority over visual values and physical access. This protection is codified in the County's Sensitive Areas Ordinance which restricts development activity near designated critical area such as the Snoqualmie and Raging Rivers and

associated wetlands. Options studied for the regional trails must recognize the priority the County places on protection of sensitive habitat.

Policies under the "Land Use Assumptions" section of Chapter 9, "Transportation" explain that the that transportation facilities, including nonmotorized trails should be consistent with the rural and resource lands character of the study area. The regional trail links would be developed in an area designated by the Transportation chapter as comprising "Rural and Resources Lands" (Policy T-501) which promote integrating nonmotorized projects (e.g., trails) with roadway improvements; focusing on shoulder improvements and development along roadway shoulders; and provision of multi-purpose trail facilities. The proposed regional trail alignments largely meet these general conditions.

Eight policies emphasizing the need to account for nonmotorized facilities development in transportation planning are articulated under the "Nonmotorized Transportation" section of the Transportation Chapter. These policies indirectly apply to the proposed regional trails projects, and address the need for safe and efficient nonmotorized facilities, increased mobility, and appropriate roadway design.

Chapter 10, "Parks, Recreation and Open Space" more directly addresses regional trails development in the context of the Comprehensive Plan. Policy PR-101 describes the County's overall approach to park and recreation facilities and notes that the "...Regional Trail System and regional multi-use parks and athletic complexes will also be emphasized." The proposed regional trail linkages are part of the Regional Trail System envisioned by the Comprehensive Plan.

Policy PR-205 states that the County will promote a system of regional parks and facilities (e.g., regional trails) that will "...attract users from beyond the geographic limits of individual neighborhoods and communities and are of the size, uniqueness of feature or character and are equitably distributed and/or are important parts of systems that best function as a unit..." This description directly applies to the proposed regional trail links, which are intended to attract and provide a recreational amenity for a Countywide population. Unlike local trails, which serve as community links, the proposed Fall City regional trail linkages will be part of the Countywide Regional Trail System and attract users Countywide. The development of these linkages will provide a more convenient access to both the Snoqualmie Valley Trail and the Preston-Snoqualmie Trail from Fall City. As such, they are intended to function as an integrated component or unit of each of these regional trails. The proposed trail alignments and their characteristics should reflect the "regional" intent of these new facilities as a higher priority than local needs.

Policy PR-306 also recognizes the role of local trails, however, as an important component of the County's approach to trails. Local trails should be identified and acquired for local needs and should be developed to accommodate multiple uses. While this policy does not directly address the proposed regional trail linkages, it does recognize the local trails are important and can be incorporated into the overall mix of County trail facilities.

#### **King County Comprehensive Plan Update (2001)**

The first major amendment of the *King County Comprehensive Plan* was adopted by King County Council in February 2001. Like the County's *1994 Comprehensive Plan*, the 2001 Update provides a framework for other plans and regulations that govern the location and density of land uses. It provides guidance to County officials for decisions on proposals such as zoning changes and developments. It also provides the public with guidance on whether the County is likely to support changes in land use or zoning, environmental regulations, or change its position on broader policy issues. The 2001 Update also provides a basis for decisions about public spending on facilities and services. And, the 2001 Update presents other agencies, such as cities and special purpose districts, with King County's position on large-scale matters such as annexation, use of resource lands, environmental protection and others. The *Comprehensive Plan* is consistent with the

Countywide Planning Polices, a countywide growth management policy framework adopted by the County and the Cities.

Many of the policies found in the 1994 Comprehensive Plan are also included in the 2001 Update under an updated document format. Two new community planning policies, CP-932 and CP-933, have been the subject of trail discussions between King County and some Fall City stakeholders. These two policies are included under Chapter 8, "Community Plans:"

CP-932 King County should work with the State of Washington and the Fall City community to make transportation improvements in Fall City that will favor safe and pleasant pedestrian and other non-motorized links between downtown business(es), the residential area(s) and nearby King County park(s), and safe walkway(s) to school rather than rapid through traffic.

CP-933 King County should expand the soft surface pedestrian, equestrian, and bicycle trails opportunities serving the Fall City area. Trail route options serving the community shall be reviewed to include a route along the left bank levee easement directly adjacent to the Raging River, historically used by the public as a pedestrian, equestrian and bicycle trail. This historically used trail generally follows the "wildlife corridor" along the bank of the Raging River from 328<sup>th</sup> Way SE approximately NE to the Preston Fall City Road. The selected trail system for Fall City shall be identified in the King County Parks and Recreation trail system plan.

#### **Applicability**

The first policy, CP-932, addresses general transportation development issues throughout the Fall City community, and notes that when new transportation improvements are constructed that they promote safe and pleasant pedestrian and other nonmotorized links. The intent of this policy is to recognize the importance of nonmotorized facilities (e.g., sidewalks, pedestrian actuated road crossings, bike lanes, etc.) being considered concurrent with new roadway (vehicular) improvements. Further, the policy notes the when such nonmotorized improvements are constructed, that they should be safe and pleasant for users, and that they should connect different uses within the community. An overarching intent is the desire to make Fall City a more pleasant, pedestrian-friendly community by favoring slower vehicular travel through town rather than promoting higher-speed vehicular through-traffic as well as making certain that various land uses can be accessed without an automobile.

The proposed regional trail links would represent a limited part of all non-motorized pedestrian facilities in Fall City. While the trail alignments that are ultimately selected should provide both safe and pleasant nonmotorized opportunities, these new facilities would not be expected to provide a comprehensive system of facilities throughout Fall City. The trails proposed are restricted to providing regional links between Fall City and the Snoqualmie Valley and Preston-Snoqualmie Trails and to do so in a manner that King County deems feasible. It is not the intent of this project to provide a comprehensive local trail/sidewalk system to all land uses in Fall City (e.g., businesses, residences, or nearby County parks). Previous planning documents, including the Snoqualmie Valley Community Plan, have made a distinction between community trails providing local access and the regional trails that are proposed by this project. King County design standards would assure that the segments of the proposed regional trails within Fall City provide safe circulation.

Policy CP-933 addresses the use of the Raging River Levee for community trail development. This feasibility study is consistent with CP-933, which states that "...Trail route options serving the community shall be reviewed to include the left bank levee easement directly adjacent to the Raging River,..." Several options explored for the Southern Connection between Fall City and the Preston-Snoqualmie Trail review the Raging River Levee as an alternative trail alignment. The policy only directs the County to review the levee route as an option, but does not direct the County to use that route, however, if it proves to be unfeasible for some reason.

#### Other Plans Which May Provide Guidance

#### **Urban Trails Plan (1971)**

The 1971 *Urban Trails Plan* is presented to provide a historical context. The document has been superseded by subsequent King County Park System plans, however.

#### **Purpose and Goals**

- 1. To provide healthful leisure time activity for County residents.
- 2. To provide non-motorized access to an among recreation resources, and other facilities or special use areas of the County
- 3. To provide the opportunity for the enjoyment of scenic amenities in the County.
- 4. To complement the County-wide transportation system by providing facilities for hikers and riders.
- 5. To meet the high demand for trail use by residents of the County.
- 6. To provide for a mode of transportation that will not create environmental pollution.

#### Location

4. Trails should traverse areas on natural beauty or special interest. Natural areas such as stream banks or greenbelts should be followed where feasible. Points of historic interest, spectacular views, or other scenic attractions should be scheduled along trail routes when possible.

#### System

- 5. Trails should be planned as a system. Each trail proposal should be an element of an overall system plan.
- 10. Trail capacity should be designed to accommodate the intensity of use anticipated.
- 20. Trail rights-of-way should take advantage of corridors that are available or create a minimum of community disturbance. As an example, railroad, pipeline, powerline or street rights-of-way may be followed where alternatives, even though more aesthetic, are disruptive to the area or for other reasons are not feasible.

#### Criteria for Evaluation

9. <u>Feasibility</u>. Perhaps the most significant consideration in the success of a trail system is the feasibility of completing each route. Within funding restraints, this factor often determines which alternatives are selected. Feasibility depends upon such items as cost of acquisition, cost of construction, and popularity of the route both locally and County-wide.

In addition to the above goals and policies, Urban Trails Map Pages 13 and 20 indicate one conceptual alignment of a trail linkage (14B) south from Fall City, entitled "Maple Valley-Fall City" which generally

follows Preston Fall-City Road and portion of the Raging River, including the existing levee to enter Fall City.

#### **Applicability**

While the 1971 *Urban Trails Plan* may have been superseded by subsequent planning documents, it does provide perspective on the proposed regional trail linkages. The "Purpose and Goals" section of the document listed six overarching goals with respect to trails development throughout the County. These goals included the provision of healthful leisure time activity, nonmotorized access to recreation resources, and enjoyment of the County's scenic amenities as well as the provision of facilities for hikers and riders and modes of nonpolluting transportation. The proposed regional trail links are consistent with these general goals.

Under "Location" the *Urban Trails Plan* notes that trails should "traverse areas of natural beauty or special interest" and "follow stream banks and greenbelts where feasible." It also notes that "points of historical interest, spectacular views, or other scenic attractions should be scheduled along trail routes when possible." The *Urban Trails Plan* recognizes the importance of siting trails in special areas, but it also recognizes the practical limitations of trail development. The intent of this study is to identify the feasibility of various route alignments in the context of the scenic, historical, and recreational values found in the study area and balance these against any identified environmental, developmental, and budgetary constraints. The recommended route alignments represent a balance between special location and practicality.

Three of the policies listed under "System" in the *Urban Trails Plan* are applicable to the regional trail links. These note that trails should be planned as a system and designed to accommodate the use that is anticipated. The third policy notes that trails should take advantage of railroad, pipeline, powerline or other existing corridors as well as street rights-of-way where alternatives, even though more aesthetic, would be disruptive or unfeasible.

Finally, the *Urban Trails Plan* noted in "Criteria for Evaluation," 9. "Feasibility" that the "...most significant consideration in the success of a trail system is the feasibility of completing each route." The policy states "Within funding restraints, this factor [feasibility] often determines which alternatives are selected. Feasibility depends upon such items as cost of acquisition, cost of construction, and popularity of the route..." It is the intent of this feasibility study for the Fall City trail links to determine the feasibility of various trail routes, given such variables as cost of acquisition and construction, environmental and regulatory constraints as well as aesthetics and popularity. The trail alignments recommended by this feasibility study have been identified as most feasible within this context.

#### **Relevant Regulatory Context**

The proposed Fall City regional trail links are subject to the land use planning and regulatory framework provided by The King County Sensitive Areas Ordinance (K.C.C. 21A.24), State Environmental Policy Act (Chapter 197-11 WAC), the King County Shoreline Master Program, and other regulations. Relevant aspects of these regulations include the following:

### King County Code Chapter 21A.24 Environmentally Sensitive Areas

(Implements King County Sensitive Areas Ordinance – SAO)

The two proposed trail links will be subject to the provisions of the County's SAO, which would be reviewed during the King County permit process via the King County Department of Development and Environmental Services (DDES). The following sections would likely be the most relevant to these projects:

**21A.24.010 Purpose.** The purpose of this chapter is to implement the goals and policies of the Washington State Environmental Policy Act, RCW 43.21C, and the King County Comprehensive Plan which call for the protection of the natural environment and the public health and safety by:

- A. Establishing development standards to protect defined sensitive areas;
- B. Protecting members of the public and public resources and facilities from injury, loss of life, property damage or financial loss due to flooding, erosion, avalanche, landslides, seismic and volcanic events, soil subsidence or steep slope failures;
- C. Protecting unique, fragile and valuable elements of the environment including, but not limited to, wildlife and its habitat;
- D. Requiring mitigation or unavoidable impacts on environmentally sensitive areas by regulating alterations in or near sensitive areas;
- E. Preventing cumulative adverse environmental impacts on water availability, water quality, ground water, wetlands, and streams;
- F. Measuring the quantity and quality of wetland and stream resources and preventing overall net loss of wetland and stream functions:
- G. Protecting the public trust as to navigable waters and aquatic resources;
- H. Meeting the requirements of the National Flood Insurance Program and maintaining King County as an eligible community for federal flood insurance benefits;
- I. Alerting members of the public including, but not limited to, appraisers, owners, potential buyers or lessees to the development limitations of sensitive areas; and
- J. Provide County officials with sufficient information to protect sensitive areas.

21A.24.180 Sensitive area tracts and designations on site plans. [Excerpt] A. Sensitive area tracts shall be used to delineate and protect those sensitive areas and buffers listed below in development proposals for subdivisions, short subdivisions or binding site plans and shall be recorded on all documents of title of record for all affected lots:

- 1 All landslide hazard areas and buffers which are one acre or greater in size;
- 2. All steep slope hazard areas and buffers which are one acre or greater in size;
- 3. All wetlands and buffers:
- 4. All streams and buffers.

21A.24.190 Alteration. Any human activity which results or is likely to result in an impact upon the existing condition of a sensitive area is an alteration which is subject to specific limitations as specified for each sensitive area. Alterations include, but are not limited to, grading, filling, dredging, draining, channelizing, applying herbicides or pesticides or any hazardous substance, discharging pollutants except stormwater, grazing domestic animals, paving, constructing, applying gravel, modifying for surface water management purposes, cutting, pruning, topping, trimming, relocating or removing vegetation or any other human activity which results or is likely to result in an impact to existent vegetation, hydrology, wildlife and wildlife habitat. Alterations do not include walking, fishing or any other passive recreation or other similar activities.

**21A24.360** Streams: Development standards. [Excerpt] A development proposal on a site containing a stream shall meet the following requirements:

- A. The following minimum buffers shall be established from the ordinary high water mark or from the top of the bank if the ordinary high water mark cannot be identified:
  - 1. A class 1 stream shall have a 100-foot buffer;
  - 2. A class 2 stream used by salmonids shall have a 100-foot buffer;
  - 3. A class 2 stream shall have a 50-foot buffer;
  - 4. A class 3 stream shall have a 25-foot buffer;

- 10. Any stream adjoining by a riparian wetland or other contiguous sensitive area shall have the buffer required for the stream class involved or the buffer which applies to the wetland or other sensitive area, whichever is greater;
- B. Buffer width averaging may be allowed by King County if it will provide additional natural resource protection, as long as the total area contained in the buffer on the development proposal site does not decrease;
- C. Increased buffer widths shall be required by King County when necessary to protect streams. Provisions for additional buffer widths shall be contained in administrative rules promulgated pursuant to this chapter including, but not limited to, critical drainage areas, location of hazardous substances, critical fish and wildlife habitat, landslide or erosion hazard areas contiguous to streams, groundwater recharge and discharge and the location of trail or utility corridors.

## **21A.24.370 Streams: Permitted alterations.** [Excerpt] Alterations to streams and buffers may be allowed pursuant to K.C.C. 21A.24.075 or as follows:

- F. Except as provided in subsection G, public and private trails may be allowed in stream buffers only upon adoption of administrative rules consistent with the following:
- 1. The trail surface shall not be made of impervious materials, except that public multi-purpose trails such as the Burke-Gilman Trail may be made of impervious materials if they meet all other requirements including water quality; and
- 2. Buffers shall be expanded, where possible, equal to the width of the trail corridor including disturbed areas;
  - G. Stream crossings may be allowed and may encroach on the otherwise required stream buffer if:
- 1. All crossings use bridges or other construction techniques which do not disturb the stream bed or bank...
- 2. All stream crossing are constructed during the summer low flow and are timed to avoid stream disturbance during periods when use is critical to salmonids;
- 3. Crossings do not occur over salmonid spawning areas unless King County determines that no other possible crossing site exists;
  - 7. Crossing are minimized and serve multiple purposes and properties whenever possible.

#### <u>Sensitive Areas: Presumption of Salmonids, Sensitive Area and Buffer Modifications, Mitigation</u> <u>Requirements.</u> (Effective date May 4, 2000)

#### 21A-24-013 Salmonid use – Presumption and rebuttal of presumption.

For the purposes of K.C.C. chapter 21A.24 and any rules adopted by the department pursuant to K.C.C. 21A.24.040:

- A.1. A stream or a portion thereof, with a defined channel. Regardless of its width, within the 100 flood plain of a Class 1 stream and a Class 2 stream used by salmonids shall be presumed to be used by salmonids.
  - 2. Unless the presumption is rebutted as provided in B. of this rule, if salmonid use is unknown, a stream shall be presumed to be used by salmonids if:
  - a. The stream has a define channel two feet or greater in width between the ordinary high water marks and has a gradient of 16 percent or less;
  - b. The stream has a gradient of 20 percent or less, but greater than 16 percent, a defined channel two feet or greater in width, and has a contributing basin greater than 50 acres in size.

#### 21-24-025 Public agency and utility exception

A. The applicant for a public agency and utility exception under K.C.C. 21A.24.070. shall prepare and submit to the department an evaluation of alternatives to demonstrate that there are no practical alternatives to the proposal that would minimize impacts to sensitive areas...

Other sections which may be applicable to the project at the time of project-level review:

21A.24.220 Erosion hazard areas: Development standards and permitted alterations.

21A.24.230 Flood hazard areas: Components.

21A.24.240 Flood fringe: Development standards and permitted alterations.

21A.24.280 Landslide hazard areas: Development standards and permitted alterations.

21A.24.310 Steep slope hazard areas: Development standards and permitted alterations.

21A.24.320 Wetlands: Development standards.

21A.24.330 Wetlands: Permitted alterations.

21A.24.340 Wetlands: Mitigation requirements.

21A.24.380 Streams: Mitigation Requirements.

21A-24-031 Mitigation Requirement.

21A-24-034 Mitigation plan requirement

21A-24-037 Mitigation monitoring requirement

Sensitive Areas: Public and Private Trails (Effective date Oct. 25, 1993, Amended Jan. 9., 1995)

**21A-24-901 Purpose.** It is the purpose of these rules to implement the trail provisions of K.C.C. 21.24.310, 21A.24.330, and 21A.24.370, to set forth requirements for trail applications and to prescribe standards for trail location, construction, design and use.

**21A-24-903 Trail Location**. [Excerpt] A. Except for access to viewing platforms and stream crossings authorized by K.C.C. 21A.24.370 and trail locations authorized in subsection (B), trails shall be located in the outer one-third (1/3) of wetland or stream buffers.

B. Trails may be located, with King County approval, on existing flood protection facilities, e.g., levies or dikes, existing utility maintenance roads or the improved portion of any existing railroad right-of-way if the placement of the trail does not enlarge the facility, road or improved portion of the right-of-way.

D. Trails shall not be located in habitats of any species listed by the State of Washington or federal government as endangered, threatened, or sensitive.

21A-24-904 Trail Construction and Design 21A-24-905 Trail Use

#### **Applicability**

Chapter 21A.24 will exercise considerable influence over the development of the proposed Fall City regional trail links. Of particular importance during this review of trail feasibility is the applicability of the Sensitive Areas legislation and Public Rules to the proposed location and character of the trails. The application of the sensitive areas code to projects such as the Fall City trail projects can be complex in circumstances where potential impacts to sensitive areas are anticipated or where there are, for example, incursions into stream or wetland buffers. The sections detailed above provide some examples of code provisions which may be applicable, depending upon where trail alignments are located.

The purpose of these code provisions is outlined in 21A.24.010 Purpose. While all of these stated justifications are important, several are worth noting. First, the 21A.24 provides applicable development standards for improvements (e.g., trails and other projects) within sensitive areas. The law is intended to protect "unique, fragile, and valuable elements of the environment including, but not limited to wildlife and its habitat." It is also intended to protect against loss due to flooding, erosion, avalanche, landslides, seismic

and volcanic events, soil subsidence, and steep slope failures. It also seeks to prevent cumulative adverse environmental impacts on three important natural elements: water quality, wetlands, and streams.

21A.24.180 identifies sensitive area tracts which include landslide hazard areas and buffers, steep slope hazard areas and buffers, wetlands and buffers, and streams and buffers. Development standards have been promulgated for each of these designated areas, which may be encountered along the proposed route alternatives for the Fall City trails. For example, proposed alignments which run along the banks of the Snoqualmie River or the Raging River would be subject to the development standards (or restrictions or prohibitions) associated with stream tracts and their buffers. Similarly, some alternative route alignments propose traversing steep slopes (e.g., Southern Connection, Option 1 and Options 6, 6a) as defined under Chapter 21A.24.180. Review of the final selected routes by DDES during the permit process would officially identify what sensitive areas are potentially impacted by the proposed trails. This feasibility study provides a preliminary review of such issues for planning purposes and recommends routes that are anticipated to minimize impacts to these sensitive areas.

Section 21A.24.190 describes the activities which may be expected to impact sensitive areas. The construction and maintenance of the proposed regional trail links would be considered as "alteration activities."

21A.24.360 Streams: "Development standards" are particularly relevant to these trail projects, as are other code provisions focusing on activities adjacent to streams and stream buffers. This section establishes a 100-foot buffer requirement along Class 1 streams (e.g., Raging River and Snoqualmie River). Within buffers, 21A.24.370 "Streams: Permitted alterations" would apply. Development of any trail segments within these areas would be tightly controlled and require extensive study by the project proponent (King County Park System/DCFM) and DDES. Burden of proof that the regional trails would not impact adjacent streams or buffers would be the responsibility of the project proponent. Regional trail proposals which would run along streams and be located within stream buffer (see Southern Connection, Option1, Option 3, and Option 6A) would be subject to the most scrutiny during review, and would likely require habitat evaluations and other technical studies under 21A.24 and this section. The section also makes it clear that new stream crossings (e.g., Option 6A) are to be minimized and proposed only where no alternative route is possible.

Development within sensitive areas is becoming more restricted as a result of the listing of various species of salmon as "threatened" under the federal Endangered Species Act (ESA). The listing is currently having ramifications for development throughout King County as the County seeks to set in place legislation and codes to protect these animals and their habitat, as required by federal law. The May 4, 2000 Public Rule: "Sensitive Areas: Presumption of Salmonids, Sensitive Area and Buffer Modifications, Mitigation Requirements" sets the stage for future protection as the County codifies and implements the agreements anticipated by the Tri-County Commission in its "Regulation of Near-shore and Aquatic Development" proposal. The "Presumption of Salmonids" rule identifies streams that are assumed to be used by salmonids. Both the Snoqualmie and Raging Rivers would be presumed to have salmonids and would be subject to any existing or future County regulations promulgated in response to the requirements of the Endangered Species Act (see below under Tri-County Proposal).

The Sensitive Areas: Public and Private Trails public rule (1993, amended 1995) provides direction for the planning and development of trails within sensitive areas, such as stream and wetland buffers (e.g., along Snoqualmie and Raging Rivers). Section 21A-24-903 "Trail Location" states in (B.) that trails may be located along existing levees and other flood protection facilities, utility maintenance roads, and railroad rights-of-way in sensitive areas (e.g., Raging River Levee), "...if the placement of the trail does not enlarge the facility, road or improved portion of the right-of-way." If this rule were applied to sections of the Fall City regional trail facilities, as proposed under Options 1 and 3, it may prohibit the development of the full multi-purpose facility.

A more restrictive subsection (D.) of 21A-24-903 would pertain to proposed trail sections along the Raging and Snoqualmie Rivers (Options 1, 3, and 6A). With the federal listing of indigenous salmon as "threatened" and these rivers designated as salmon streams (Presumption of Salmonids public rule), subsection D. would appear to apply and it states that: "Trails shall not be located in habitats of any species listed by the State of Washington or federal government as endangered, threatened, or sensitive. The final determination as to the applicability of this rule to the final selected regional trail routes would be made by DDES during permit review. For planning purposes, it may be assumed that these proposed regional trail options could encounter legal impediments to development as a result of trail segments in aquatic sensitive areas.

### Tri-County Proposal: Regulation of Near-shore and Aquatic Development – A Proposal to Help Protect Salmonid Habitat in the Puget Sound Region (April 2 Draft)

The Tri-County Proposal recommends regulation of nearshore and aquatic development standards as a component of the Tri-County Model ESA Response Program. This program applies to development activities in aquatic and adjacent near-shore areas that either provide salmonid habitat or are connected to waters that supply salmonid habitat. These aquatic and nearshore areas encompass what is termed the "Management Zone," which varies in width depending on many factors. These factors include the nature of the surrounding aquatic area as habitat for, or its effect on, habitat of salmonids, the nature of the surrounding area, including the level of development, and the presence or absence of a channel migration zone, associated wetlands, or steep slopes. The Tri-County Proposal responds to the listing of local Chinook salmon and other fish species as "threatened" under the ESA. Although the Proposal has yet to be finalized and approved by federal agencies with jurisdiction, and King County has not yet codified its recommendations, the April 2 draft provides insight into anticipated future regulations that will apply to projects such as the proposed regional trail linkages.

#### **Applicability**

The Tri-County Proposal's current recommended "fixed regulations option" standards provide substantially greater habitat protection in aquatic and near-aquatic areas (e.g., streams and wetlands and their buffers). This protection is achieved in large measure by prohibiting and/or restricting development in these areas. For example, stream buffers along the Raging River and Snoqualmie River, their tributaries, and associated wetlands would be increased to 200 feet, and would include a 150 foot-wide "inner" buffer and a 50 foot-wide "outer" buffer. The inner buffer would be a "no-touch" zone in which essentially no development activity would be allowed. The outer buffer would also be subject to development restrictions including, but not limited to, a prohibition of any effective impervious surfacing (e.g., paving or hard gravel surfaces). It is still unclear how these development prohibitions and restrictions will ultimately affect trail development, but DCFM assumes that these new regulations would substantially limit new facilities near rivers, streams, and associated wetlands in King County. The County's sensitive areas codes are now being revised in order to incorporate the final Tri-County Proposal recommendations once they are approved by federal agencies.

Future regulations implementing the Tri-County Proposal may have a substantial impact on the regional trail alignments which cross sensitive areas tracts such as Southern Connection Options 1, 3, and 6A, which seek to use the Raging River Levee or the Snoqualmie River bank for sections of the trail. Under the new regulations, which would supersede King County's existing Sensitive Areas code (K.C.C. 21A.24) and which would likely be in effect by the time permitting is undertaken, it is conceivable that no new trail development would be permitted within 150-200 feet of either river and, perhaps, a greater distance, if associated wetlands or tributaries are present. For planning purposes, this effectively limits consideration of these route alternatives.

#### **State Environmental Policy Act (SEPA)**

The State Environmental Policy Act (SEPA) may be the most powerful tool for protecting the environment in the State of Washington and King County. Among other things, the law requires all state and local governments within the state to:

- "Utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences and the environmental design arts in planning and in decision making which may have an impact on man's environment;" and
- Ensure that "...environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations..."

#### **Applicability**

The two proposed trail links would be subject to SEPA project-level review during the DDES permitting process. King County's Department of Construction and Facilities Management (DCFM) acts as lead agency with respect to SEPA, but DDES will use the results of the process for permit review. The SEPA process includes the preparation of a SEPA Checklist, which identifies potential environmental impacts and makes a Determination of Significance or Nonsignificance as to the "significance" of any identified impact. When potential significant impacts are found the lead agency may require that an environmental impact statement (EIS) be prepared for decision makers. In many instances SEPA review will require the preparation of focused technical environmental studies and appropriate project design to reduce identified impacts to a level of nonsignificance.

The SEPA process would be used by DCFM to identify and detail any sensitive areas issues or other environmental issues that might be associated with the final selected regional trail alignments. While avoidance of impacts would be the first environment criteria for trail route selection, mitigation measures may also be incorporated where appropriate and permitted.

#### **King County Shoreline Master Program**

The purpose of this program is to implement the State's Shoreline Management Act of 1971 and regulates development activities along and near shorelines of the State. Any trail development that enters the shoreline zone would be subject to the provision of the County's *Shoreline Master Program*. *Shoreline* protection under the Shorelines Act is provided in Chapter 25 of the King County Code.

**25.04.010 Purpose**. The purpose of this title is to implement the Shoreline Management Act of 1971 and to provide for the regulation of development which impacts those areas of King County under the jurisdiction of the Shorelines Management Act consistent with the policies of Section 2 of that act, WAC 173-16 and the goals, policies and objectives of the King County shoreline master program.

This title contains the regulations of King County's shoreline management master program and the procedures to implement those regulations. These regulations and procedures are consistent with and implement the goals, policies and objectives of King County's shoreline management master program...

- **25.04.030 Scope.** A. No development shall be undertaken by any person on the shorelines of the state unless such development is consistent with the provisions of this title and the goals, policies and objectives of the master program.
- B. Development prohibited by this title but otherwise permitted by King County land use controls is prohibited only within the shorelines of the state.
- C. Development proposed on property adjacent to water bodies or wetlands under the jurisdiction of the Shoreline Management Act shall be evaluated in terms of goals, policies and objectives of the master program.

- **25.04.050 Relationship to other King County programs.** [Except] A. When provisions of this chapter conflict with the sensitive areas code, K.C.C. Chapter 21A.24, that which provides more protection to the sensitive area shall apply.
- B. King County shall issue no permit prior to approval pursuant to this title and shall take no action contrary to the goals, policies, objectives and regulations of the King County shoreline management master program when under the jurisdiction of the Shoreline Management Act is involved in a request for a decision in any of the following programs:
  - 1. Building permit;
  - 2. Right-of-way construction permit;
  - 3. Short Subdivision;
  - 4. Grading permit;
  - 5. Site plan approval;
  - 6. Access permit;
  - 7. Trail permit;
  - 8. State flood control zone permit;
  - 9. Zoning variance;
  - 10. Conditional use permit...

[nine additional programs]

25.08.604 Wetlands. [Excerpt] "Wetland," "associated wetlands" or "wetland areas" means those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; and all marshes, bogs, swamps, floodways, river deltas, and the entire one-hundred-year floodplains associated with the streams, lakes and tidal which are subject to the provisions of this title...

**25.12.020** *Names of environment designations. In order to accomplish the purpose of this title, environmental designations have been established to be known as follows:* 

- A. Natural environment;
- B. Conservancy environment;
- C. Rural environment;
- D. Urban environment.

Applicable shoreline designations for segments of the Snoqualmie River and the Raging River in the study area are provided in the April 1978 King County *Shoreline Management Master Program Supplement* and Ordinance No. 3689. These designations include the following:

#### **Snoqualmie River Shoreline Designation**

Snoqualmie River east of the confluence with the Raging River is designed as "Conservancy." West of the confluence with the Raging River to the Fall City Bridge the Snoqualmie River is designated as "Rural." West of the bridge the river is designated as "Urban."

#### **Raging River Shoreline Designation**

Raging River upstream from 328<sup>th</sup> Avenue SE bridge is designated as "Conservancy." The river is designated as Rural from the 328<sup>th</sup> Avenue SE bridge to the mouth on the Snoqualmie River.

"Urban Environment" permitted uses are detailed under 25.16. The Urban Environment designation allows the most diverse and intense uses of the four shoreline designations including commercial and residential development and associated piers, moorage and launching facilities. Industrial development is also permitted under this designation. "Rural Environment" permitted uses are detailed under 25.20 and includes similar commercial, residential development, and industrial uses with greater limitations. The intent of this

designation is restrict intense development. The "Conservancy Environment" designation is intended to maintain the area's existing character. Neither commercial development nor multifamily residential development is permitted. Single family residential development is permitted with limitations. Industrial development is not permitted.

#### **Applicability**

The Shoreline Master Program would apply to segments of the proposed Fall City regional trail links that pass within the shoreline zone (200 feet) of either the Snoqualmie River (e.g., Southern Connection Options 1, 3, and 6A). In general the Shoreline Master Program provisions are less protective than the County's sensitive areas regulations. While a Shoreline Substantial Development Permit would be required for any selected trail alignment that enters the shoreline zone, its influence over trail development would not be as great as the County's sensitive areas regulations. As a result, sensitive areas section 25.04.050, "Relationship to other King County programs," would apply.

#### Conclusion

The feasibility of the proposed Fall City regional trail links will be influenced by King County plans and regulations. The trail routes selected must be consistent with these policy documents and codes, which seek to balance growth and environmental protection. Plans which provide direction include:

- King County Regional Trails Plan;
- King County Park, Recreation, and Open Space Plan;
- Fall City Subarea Plan;
- Snoqualmie Valley Community Plan;
- King County Comprehensive Plan (1994 and 2001); and
- Urban Trails Plan.

The policies in these plans provide an overall context for regional trail planning. The *Regional Trails Plan* and the *Park, Recreation, and Open Space Plan* address the creation of a the regional trails network within the context of the County's park, recreation, and open space system.

The *Fall City Subarea Plan* recommends that the creation of the proposed regional trail links from Fall City to the Snoqualmie Valley Trail and the Preston-Snoqualmie Trail as well as this feasibility study. The plan also notes the sensitive areas associated with the study area, which must be traversed by the proposed trails.

The *Snoqualmie Valley Community Plan* articulates the difference between traditional "land trails" and "river trails," which are the area's rivers and streams. The *Community Plan* also differentiates between "regional trails" and "local trails." Regional trails follow major travel corridors and connect major parks, communities, and other trails within the context of the "Sound-to-Mountain" concept [now termed Mountains-to-Sound Greenway]. The proposed trail linkages from the Snoqualmie Valley Trail and the Preston-Snoqualmie Trail to Fall City are considered "regional land trails." Local trails, in contrast, provide more informal local links within the community and maintained by volunteers. They may also interconnect with regional trails.

The *King County Comprehensive Plan* provides guidance in the Natural Environment, Transportation, and Parks, Recreation, and Open Space Elements. The plan places high priority on the protection of County shoreline environments, which is codified under Chapter 21A.24 Environmentally Sensitive Areas (below). The plan also promotes nonmotorized projects and provides for integrating nonmotorized facilities (e.g., trails) within existing roadway rights-of-way where appropriate. The Comprehensive Plan places a high priority on a system of regional parks and trails to be developed for the benefit of a Countywide population. The intent of the proposed Fall City trail links are consistent with these policies. Community Planning policies in the 2001 Update provide direction regarding nonmotorized planning in the Fall City community.

One of two policies seeks to provide a more pedestrian-friendly transportation environment with slower traffic speeds, while the second policy directs the County to specifically look at using the left bank of the Raging River Levee as part of one of the trail alignments. The levee route was reviewed by this feasibility study, but was not recommended for the regional trail link.

The *Urban Trails Plan* has been superseded by the plans listed above, but it may provide a historical context to the development of the regional trails. The plan promoted County trails development and specified the purposes and goals for these trails as well as promoted locating trails in aesthetically pleasing environments. The plan also recognized the concept of feasibility of development within a real-world context, however, noting potential restraints.

Regulatory direction for the proposed regional trail links would be provided by various County regulations, including, but not limited to, the following codes and programs:

- King County Code Chapter 21A.24 Environmental Sensitive Areas;
- Sensitive Areas: Presumption of Salmonids, Sensitive Area and Buffer Modifications, Mitigation Requirements Public Rule (under 21A-24);
- Sensitive Areas: Public and Private Trails Public Rule (under 21A-24);
- Tri-County Proposal: Regulation of Near-shore and Aquatic Development A Proposal to Help Protect Salmonid Habitat in the Puget Sound Region;
- State Environmental Policy Act (SEPA); and
- King County Shoreline Master Program.

The application of County sensitive areas regulations and other programs to various trail alignment options will provide site-specific guidance during the permit process. Evolving sensitive areas codes and legislative proposals will have a significant influence over the final location and character of the selected regional trail alignments.

King County Code Chapter 21A.24 Environmental Sensitive Areas provides a regulatory umbrella for the protection of environmentally sensitive areas by development activities. Landslide hazard areas, slope hazard areas, wetlands, and streams are all subject to sensitive areas protection as are defined buffers adjacent to these areas. The proposed trail alignment alternatives may enter these buffers, and in doing so would come under the sensitive areas regulations. Of particular importance is the potential conflict with steep slopes and stream buffers where environmental impacts may be most significant. Steep slopes are found throughout the study area and may be located along one or more of the proposed trail alternatives. Stream buffers are located along the Snoqualmie and Raging Rivers and three trail alternatives propose development within them.

More recent rules including the "Sensitive Areas: Presumption of Salmonids, Sensitive Area and Buffer Modifications, Mitigation Requirements Public Rule" and "Sensitive Areas: Public and Private Trails Public Rule," as well as the evolving "Tri-County Proposal" all place additional restrictions on development within aquatic areas (Snoqualmie and Raging Rivers) and their buffers. With the listing of local salmon as "threatened" under the Endangered Species Act protection of these and other listed species becomes the highest priority with respect to the feasibility of development within these areas. Regulations are now in place to limit or prohibit development of trail segments which are proposed to closely follow either the Snoqualmie or Raging Rivers. It is also anticipated that restrictions to development will be broadened if the County codifies the provisions in the Tri-County Proposal. As a result, proposed trail alignments which follow the Snoqualmie River (Southern Connection Option 6A) or use the Raging River Levee (Options 1 and 3) may be considered potentially infeasible.

The State Environmental Policy Act (SEPA) will be used at the project-level to identify and minimize any potential environmental impacts associated with the final selected trail routes. It is anticipated that final routes

will be recommended that present no significant adverse environmental impact and would qualify for a Determination of Nonsignificance.

The King County Shoreline Master Program may also apply to the proposed regional trail links, if trail segments enter the Shoreline Management Zone or 200 feet of Snoqualmie and Raging Rivers. Because the County Sensitive Areas regulations (under 21A.24) currently provide greater habitat protection within this zone, it is likely that those codes would supersede Shoreline regulations, as stipulated in County Code.

#### APPENDIX H AUTHORIZED SCOPE OF WORK

316206	Fall City Trail Study	FAC-PARKS CI	FAC-PARKS CIP MO ACTUAL EXPENSE PROGRAM	ISE PROGRAM		
<b>Fund:</b> 3160 <b>Dept:</b> 0346	Parks, Recreation & Open Space Parks, Recreation & Open Space	Council District Location		12 Fall City		
<b>Description</b> Funding for a st	<b>Description</b> Funding for a study of potential links between Fall City and the Preston Snoqualmie Trail	ton Snoqualmie Trail				
Project Comparison:	arison:	Cost Data	Funding Request:	\$25	\$25,000 (2	(2000)
Status: N	New Project		Original Cost Estimate: 2000-2005 Cost Est: Annual Operating Costs:	ite: osts:	\$25,000 (2 \$25,000 TBD	(2000)
Expenditures		Program Projec	Program Projections in Thousands			
Option	Account Name 2000 Proposed	2001 2	2002 2003 2004	4 2005		Total
		0 0		0 0		20,000
600	CONST ADMIN/ENGINEERING 5,000	n	0 0	0 0		2,000
	Totals 25,000	0	0 0	0 0		25,000
Revenues						
Sources						
A 39776	CONTRBTN-REET #2 25,000	0	0 0	0 0		25,000
	Totals 25,000	0	0 0	0 0		25,000

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